FOURTH

Annual Report

—OF THE—

BOARD OF HEALTH

—OF THE—

CITY OF NEWARK, N. J.,

FOR THE YEAR ENDING

DECEMBER 31st, 1888.

NEWARK, N. J.:
FRANCIS BELL, STATIONER AND PRINTER,
761 to 767 Broad Street.

1890.

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CITY OF NEWARK, N. J.

OFFICE OF THE BOARD,
CITY HALL, THIRD FLOOR, ROOMS 5 AND 6.

MEMBERS.

HIS HONOR, MAYOR JOSEPH E. HAYNES, PRESIDENT.
DR. FREDERICK B. MANDEVILLE, HEALTH PHYSICIAN.

ALDERMAN ALEXANDER H. JOHNSON,
MR. HENRY R. BAKER,
MR. TYLER PARMLY,
DR. CHARLES M. ZEH,
DR. HERMAN C. H. HEROLD,
HON. WILLIAM A. RIGHTER,
MR. SAMUEL S. SARGEANT.

COMMITTEES OF THE BOARD FOR 1888.

On Finance.—Alderman Johnson, Mr. Parmly, Dr. Herold.
On Sanitation.—Dr. Mandeville, Dr. Zeh, Mr. Sargeant.
On Laws and Ordinances.—Dr. Zeh, Dr. Mandeville, Mr. Baker.
On Conference and Appointments.—Mr. Sargeant, Mr. Baker, Mr. Parmly.
On Rules.—Mr. Righter, Mr. Baker, Alderman Johnson.

OFFICERS OF THE BOARD.

DR. DAVID L. WALLACE, *Secretary and Health Officer.*
DAVID D. CHANDLER, *Clerk to Health Officer.*
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C. PHILLIPS BASSETT, C. E., E. M., *Consulting Engineer.*
HERBERT B. BALDWIN, *Chemist.*

SANITARY INSPECTORS.

First and Eighth Wards.—Thomas E. Freeman.
Second and Fourth Wards.—Bernard Nulty.
Third, Ninth and Fourteenth Wards.—Charles H. Edwards.
Fifth and Tenth Wards.—Lewis H. Bridgem.
Sixth and Seventh Wards.—William H. Lyle.
Eleventh and Fifteenth Wards.—David Duffy.
Twelfth Ward.—George W. Schmitt.
Thirteenth Ward.—Victor L. Hesse.

MEAT INSPECTORS.

WERNER RUNGE, D. V. S. PHILIP MILLER.

MILK INSPECTOR.

HENRY NEGLES.

OUT-DOOR POOR DEPARTMENT.

CITY DISPENSARY, CENTRE MARKET BUILDING, ROOM 12.

CITY APOTHECARY.

J. FRANK CRAMER.

DISTRICT PHYSICIANS AND ATTENDING PHYSICIANS TO DISPENSARY.

First District, 1st and Eighth Wards.—Dr. Ed. DeL. Bradin.
Second District, 2d, 3d and 4th Wards.—Dr. Arthur C. Dougherty.
Third District, 9th and 10th Wards.—Dr. F. L. Meyer.
Fourth District, 5th and 12th Wards.—Dr. Philip Roth, Jr.
Fifth District, 13th and 14th Wards.—Dr. Henry A. Kornemann.
Sixth District, 7th and 15th Wards (east of Newark St.)—Dr. Stephen W. Van Duyne.
Seventh District, 6th Ward.—Dr. Vincent Nager.
Eighth District, 11th Ward and 7th and 15th Wards (west of Newark St.)—Dr. Edward Everitt.

Regular meetings of the Board are held in the Mayor's office, City Hall, on the first Monday of each month, at 8 o'clock P. M.

REPORT.

ANNUAL REPORT

—OF THE—

HEALTH OFFICER.

NEWARK, N. J., January 1st, 1889

To the Honorable, the Board of Health, of the City of Newark, N. J.:

GENTLEMEN:—I have the honor herewith, to transmit this, the fourth annual report of the Department of Public Health, for the year ending December 31st, 1888.

Before appending the reports, a brief synopsis of what has been accomplished during the past year, together with a few suggestions in regard to matters that should receive attention in the near future may be of interest.

One of the most important steps taken, was the passing of a "Sanitary Code" and the printing of five thousand copies of the same for distribution. A copy of this Code has been placed in the hands of every Architect, Builder, Physician and Undertaker in the city, and the result has been that our laws are now being observed more closely, it being impossible to offer the excuse of ignorance in case of violation of any of them.

Attention having been called to carelessness in some cases and ignorance in others, in the laying of drains connecting premises with sewers or cesspools, an order was issued that before any connection of house drainage and plumbing with sewers or cesspools should be covered, the same should be inspected by an inspector of this Board and by him approved. The result has been that irresponsible men have been driven out of the business, and the character of the work now done is perfect.

Up to the present year, there has been more or less trouble incident upon the removal of the contents of privy vaults and cesspools. Certain parties engaged in this business had been a law unto themselves, ignoring to a very great extent, the provisions of the Code regulating this subject, and requiring the work to be done by the ordorless process. Your Health Officer determined it should be done as required by the Code, and the result was the institution of suits against those offending, which at first were by the wholesale. No quarter was shown, the penalties being collected in all cases. This was not endured very long; these parties found that the Board was determined in the matter, gave up the fight, and are now carrying on their business in a legitimate manner.

Another matter that received attention, was the storing of rags bones, etc. in houses occupied by Italians in different parts of the city. At the present time, so far as the houses are concerned, this practice has been broken up; in the majority of instances the business has been stopped altogether; but the disposition now is to apply to the Board direct for permits to keep the rags, etc. in sheds on the premises, the Health Officer having refused to issue such permits. These petitions should be rejected in all cases, except it can be shown that the yards are large enough to have such buildings erected a sufficient distance from all dwellings, which is certainly impossible in the built-up portions of the city.

Previous to this year, the dealers in Poultry in the Centre Market, killed and dressed their stock in the booths occupied by them, which was not only disgusting to people passing through the market, but exceedingly obnoxious to the tenants of neighboring booths. About April 1st, notices were served on all dealers that after May 1st arrangements must be made to kill and dress their Poultry in such other places as would be satisfactory to the Board of Health. The Health Officer was waited upon by a committee from these dealers, and it was represented to him that should the order be carried out their business would be ruined; but he took a different view of the situation and decided that the order should stand. On May 1st they all had premises provided away from the market and in unobjectionable places, and since that time, have continued business in the new way without apparently having lost any great amount of money.

During the first part of the year there was a disposition shown on the part of some Undertakers to continue the old practice of holding public funerals in cases of death from contagious diseases. The Board started suit in one case and was defeated the judge ruling that inasmuch as it was shown that only relatives attended the funeral, it was a private one. The effect of the trial, however, was beneficial in two ways, it satisfied the Board that the section of the Code governing this subject should be drawn in a more rigid manner, which was done at once, it now reading "that the funeral shall be strictly private, (that is, the members of the immediate household only shall be present;") it also demonstrated to such others as had violated the section referred to, that the Board was determined in the matter, and since time no public funeral in such cases has been held

I would now make the following suggestions

1 That inasmuch as the last Legislature conferred on Boards of Health of the Cities of this State the power to pass ordinances to compel, prescribe, regulate and control the plumbing, ventilation and drainage of all buildings, public and private, that this Board take advantage of the said act at once, and pass an ordinance governing these subjects. If put on a first reading at the February meeting, even without calling a special meeting, it could become a law by May 1st.

2 Another subject demanding immediate consideration by the Board, is the disposition of garbage in this city At the present time the ashes and garbage are not required to be separated, and in a mixed condition are collected by the city scavenger, under a contract with the Common Council, at a great loss to himself Under these circumstances in order to make his loss as small as possible he has taken contracts with parties to fill in lots in different sections of the city. All sanitary authorities are satisfied that this is exceedingly detrimental to the health of the inhabitants living adjacent to these dumping grounds and as no growing dwellings or factories to be built over such material it would be next to criminal This subject should be met and dealt with at once The ashes and garbage should be separated. The ashes could then be utilized, either by the city or the contractor, for filling in of lots below grade, and the garbage should be destroyed

There are several methods now in use having this object in view, each one having its advocates. While the majority destroy it by incineration, there is one method now adopted by the cities of [illegible] which the garbage is turned to some practical use instead of wasted. By this method it is first subjected to a temperature of 250° Fahrenheit, by which the vapor is driven [illegible] condenser and passes away as a comparatively [illegible] sewage. The garbage is then subjected to another process [illegible] the grease is extracted, the residue making an excellent fertilizer. Both the grease and the fertilizer command a ready sale.

3. While the removal of the contents of privy vaults and cesspools is accomplished as required by the Code, we are laboring under the difficulty of having no proper means at hand for its ultimate disposal. At the present time it is carted to farms on the outskirts of the city, which is causing more or less complaint at all times; but particularly in the Summer months. I would suggest that this be given careful consideration at an early date, and some method [illegible] that is not such a nuisance to any of our inhabitants.

While on this subject, I would call the attention of the Board to the large number of privy vaults on the line of streets in which sewers are laid.

Section 33 of the Code provides "that no privy vault shall hereafter be constructed or maintained in any other premises having a sewer connection, or abutting on a street in which is, or hereafter may be laid a sewer without a permit from the Board of Health." So far as the construction of new vaults is concerned, the section is [illegible] but there are large numbers of these receptacles that should be removed, and the Board should order that the section be carried out in its entirety.

4. As yet no hospital has been provided for patients suffering from contagious diseases who cannot be properly isolated at their homes. In my present message His Honor the Mayor offered a suggestion [illegible] the establishing of such a hospital on [illegible] recently purchased for the New York City Hospital. I earnestly hope his advise will be given the consideration it merits.

5. Section 83 of the Code, regulating the burial of bodies in cemeteries in this city, needs careful attention from the Board There are at present two cemeteries where the care in burials is not given the consideration it should receive. One is so full at the present time that no more interments should be allowed in it. The other is situated on such swampy ground that it is impossible to dig any great depth without striking water Oftentimes after heavy rains, the water running off from this cemetery and passing through the gutters to the sewers is said to be decidedly offensive If interments are to be allowed in this place, the trustees should be compelled to establish a system of drainage to remedy the now existing evils. I trust that such an edict will go forth at an early date.

VITAL STATISTICS.

While the reports of births and marriages are still incomplete, each succeeding year since 1885, has shown an improvement. Previous to that time no record of these events was kept in the Health Office There is still room for more improvement, especially in regard to the return of marriages, and an effort is now being made to get the Clergymen of the city interested in the matter

BIRTHS.

During the past year, 5,115 births were reported. The totals for 1886 and 1887 were 4,574 and 4,846 respectively Of the 5,115 reported, 5,038 were white and 77 colored; 2,548 were males and 2,554 were females—the sex of 13 not being stated; 5,073 were legitimate and 42 illegitimate. The birth rate per thousand of the population was 28.86

MARRIAGES

There were 1,668 marriages reported during the past year, 1,375 having been reported for 1886 and 1,632 for 1887.

Of the 1,668 reported, 1,625 were white and 43 colored. The marriage rate per thousand of the population was 9.37.

DEATHS.

During the past year there were 4,088 deaths, representing a [illegible] the population estimated [illegible] 22.96 This is a decrease from 1887, it being 23 86 for that year Of these, 2,063 were white males and 1,885 white females. The deaths among the colored population were 66 males and 74 females.

Population white (estimated,) 174,267, death rate 22 69.
Population colored (estimated,) 3,766, death rate 34 75.

The deaths, with the death rate by quarters was as follows.

First Quarter, . . .	1,050.	Death Rate	23 59
Second " . . .	993,	"	22 31
Third " (Summer months)	1,099,	"	24 69
Fourth " . . .	946,	"	21 25

The total number of deaths under five years of age, was 1,723, and of these, 1,074 were under one year. The deaths under one year per thousand of registered births is thus shown to be 200. Of the 1,074 deaths under one year, 197 were less than two weeks old, 105 were less than three days and 46 were under one day.

The deaths referred to the Zymotic diseases, which had been 693 for 1886 and 752 for 1887, increased last year to 808, and with the exception of 17 which occurred in public institutions, were divided among the different wards as follows

1st Ward	21	Death Rate	2.33	8th Ward	80,	Death Rate	4.70
2d "	28,	"	" 3.50.	9th "	19,	"	" 2 37
3d "	24,	"	" 3 00.	10th "	81,	"	" 5 78
4th "	67,	"	" 9.57.	11th "	28,	"	" 2 80
5th "	26,	"	" 3.71.	12th "	98,	"	" 5.44
6th "	96,	"	" 4.19.	13th "	135,	"	" 5.40
7th "	32,	"	" 3 20.	14th "	15,	"	" 2.50

15th Ward 41, Death Rate 4.55.

Of this class

Measles caused	2	deaths,	a	decrease from	1887	of	18
Fever Scarlet "	25	"	an	increase over	"	"	8
Diphtheria & Croup caused	314	deaths,	an	increase over	"	"	61
Whooping Cough	"	6	"	a decrease from	"	"	7
Fever Typhoid	"	86	"	an increase over	"	"	32
Fever Malarial	"	37	"	a decrease from	"	"	11
Diarrhœal Diseases	"	271	"	an increase over	"	"	6

Of the constitutional diseases, Phthisis Pulmonalis caused 438 deaths a decrease of 28 from the previous year

Of the principal respiratory diseases, 198 deaths were from Bronchitis and 294 from Pneumonia.

There were 122 deaths from accidents, there was 1 homicide and 23 suicides.

OUT DOOR POOR.

The following is the yearly statements of Mr. J. Frank Cramer, City Apothecary.

Number of patients treated at clinics.....	3,744	
Number of dispensary prescriptions filled		3,961
Number of district prescriptions filled.....		4,568
Total written and dispensed.....		8,529
Teeth extracted.....		2,310
Vaccinations.....		875

The total amount spent for drugs, was $859.94, giving an average cost per prescription of ten cents.

The following table shows by districts the number of patients treated, visits made, prescriptions written, number of patients sent to hospitals and deaths for the year 1888.

District	Location	Patients	Visits by Male Nurses	Visits by Female Nurses	Visits by Health Officer	Deaths
First ..	1st and 8th Wards ..	311	782	453	4	16
Second	2d, 3d and 4th Wards.	368	881	692	61	13
Third..	9th and 10th Wards	470	1 28	757	54	20
Fourth .	5th and 12th Wards..	785	1 23,	82s	41	21
Fifth....	13th and 14th Wards.	624	911	541	37	9
Sixth ...	7th and 15th Wards, east of Newark St	512	1 24'	824	21	24
Seventh	6th Ward	397	795	361	31	21
Eighth ..	11th, 7th & 15th Wds, west of Newark St.	451	733	6 2	25	19
	Grand Total	3,918	7 620	4,568	313	143

MEAT AND LIVE STOCK DEPARTMENT

The following gives the inspections in this Department together with the condemnations for the year 1888

Months	Beef Cattle	Veal Calves	Sheep	Hogs	Total
January.	2 2 7	2 , 0	3,065	4 7 6	13 4 8
February	1 9 +	3,272	754	3 080	1 64
March	3,073	4,135	5,631	6,419	19,258
April	2,564	4,147	6 139	5,609	18,459
May	3,413	4,724	4,180	3,876	16,193
June	3,115	3,341	5,329	4,982	16,767
July	2 342	3,555	4,174	55,33	15,604
August	2,120	2,326	5,805	7,514	17,765
September	3,026	4,082	6,342	9,737	23 187
October.	2,520	3,893	8,587	8 829	23,829
November	2,391	4,351	3,372	5,837	15,951
December	2,543	4,035	2,894	41,33	13,605
Totals.....	31,218	44,761	63,902	70,855	210 736

The following are the condemnations:

	NUMBER
Cattle Beef	3
Calves	39
Sheep	14
Hogs	1

QUARANTINED

	NUMBER
Cattle	13

ARTICLES CONDEMNED IN MARKETS.

	POUNDS
Beef	985
Veal	459
Poultry	450
Fish	360
Pork	292
Mutton	91
	NUMBER
Rabbits	12
	BARRELS
Beans	41
Cabbage	3
Potatoes	16
Bananas	9
	BASKETS
Peaches	38
Grapes	24
	BOXES
Peas	2
	BUSHELS
Chestnuts	6
	QUARTS
Blackberries	800
Strawberries	60

CONTAGIOUS AND INFECTIOUS DISEASES REPORTED.

During the past year there has been a very large increase in the number of contagious and infectious diseases reported, the comparison with the year 1887 being as follows

Reported in 1888.	Compared with 1887
Diphtheria, 949 cases,	Increase 33
Fever Scarlet, 466 "	" 1
Fever Typhoid, 435 cases	" 310
Croup Membranous 71 "	Decrease 13

As this subject has already been alluded to in the first portion of the report, further comment is unnecessary.

The following gives a summary of the work done in the Sanitary Department and that of the Milk Inspector.

Notices served for the abatement of nuisances...	2,178
Abatements.....	1,802
Notices served to rectify defective plumbing and drainage.....	1,133
Rectifications.	965
Permits granted for sewer connections.	1 376
Number of sewer drains inspected....	1 192
Permits granted for cleaning privy vaults	2,362
Permits granted for cleaning cesspools.....	134
Permits granted for keeping cows and goats.	636
Number of samples of milk tested...	2 322
Number of samples sent to analyst .	14

Respectfully submitted,

DAVID L. WALLACE, M. D.,

Health Officer

TABLES.

TABLE No. 1.

SHOWING NUMBER OF BIRTHS REPORTED FOR EACH MONTH, WITH COLOR, SEX, NATIVITY OF PARENTS TOGETHER WITH TOTAL FOR THE YEAR AND THE BIRTH RATE

Month	Total	Color		Sex			Nativity of Parents								Name of Child			
		White	Colored.	Male	Female	Not Stated.	Native	Foreign.	Native Father only.	Foreign Mother only	Nativity of Father stated only.		Nativity of Mother stated only.		Nativity not stated.	Stated	Not Stated	Illegitimate	Illegitimate.
											Nat.	For.	Nat.	For.					
Jan	448	444	4	224	222	2	185	193	58	20	1				2	230	218	446	2
Feb	451	444	7	214	237		199	177	43	25	1					267	184	450	1
Mar	399	391	8	191	206	2	152	185	36	22		..	2	2	.	211	188	394	5
April	383	376	7	177	206	..	142	161	52	24	...	...	2	2		215	168	378	5
May	318	316	2	160	156	2	102	157	33	24	1	...	1	...	.	191	127	315	3
June	372	367	5	175	193	4	142	169	37	16	1	1	3	2	1	210	162	370	2
July	362	357	5	189	173	..	141	151	45	15	1	1	1	2	5	168	194	359	3
Aug.	369	364	5	185	185	1	137	173	48	11						237	132	369	
Sept	488	480	8	244	244		199	201	46	31			5	5	1	248	240	488	8
Oct	420	413	7	210	210	....	173	178	46	18	..	2	3	....	....	223	197	414	6
Nov	693	680	13	353	338	2	324	248	77	41			1	1	1	316	377	688	5
Dec	412	406	6	228	184	...	171	172	48	19	..	..	2	....	...	227	185	410	2
Total	5,115	5,038	77	2,548	2,554	13	2,047	2,165	575	275	5	4	20	14	10	2,743	2,372	5,073	42

Birth rate per thousand of the population, 26.87

TABLE No. 2.

Showing the Number of Marriages Reported by Months, together with the Total for the Year and the Marriage Rate.

Month.	[illegible]	[illegible]	Col[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Nativity not [illegible]	[illegible]	1st M[illegible]	[illegible]	2d M[illegible]	[illegible]	3d M[illegible]	[illegible]	4th M[illegible]	[illegible]	Marriage not S[illegible]	[illegible]
January	125	121	121	4	4	1	8[illegible]	54	43			[illegible]	[illegible]2	1[illegible]	1[illegible]	2				15	21
February	12[illegible]	123	122	4	4	[illegible]	74	[illegible]	4	1	3	102	10[illegible]	[illegible]	1[illegible]					11	11
March	10[illegible]	10[illegible]	10[illegible]	1	1	[illegible]	[illegible]	44	[illegible]		2	[illegible]	81	[illegible]	1[illegible]	1	1			[illegible]	[illegible]
April	139	137	137	2	2	67	75	66	56	6	8	102	98	21	19	....	1	....	....	16	21
May	112	108	108	4	4	69	82	34	21	9	9	88	94	16	8	..	1	.	....	8	9
June	152	146	146	6	6	96	107	56	44	..	1	119	127	19	12	1	....	.	...	13	13
July	105	102	102	3	3	61	64	44	39		2	82	75	12	13	1	1	....	.	10	1[illegible]
August	171	169	169	2	2	68	78	103	90		3	130	129	25	24	2	..	....	..	14	18
September	138	135	135	3	3	83	88	53	46	2	4	112	107	15	20	...	....	.	..	11	11
October	166	159	159	7	7	102	110	64	52		4	143	143	16	11	...	1	...	...	7	11
November	204	199	199	5	5	123	131	81	69		4	171	170	19	17	2	1	..	.	12	16
December	123	121	121	2	2	68	74	55	46		3	100	100	14	16	.....		..	...	9	7
Total	1,[illegible]	1,[illegible]25	1,[illegible]	43	[illegible]	[illegible]	1,[illegible]2	[illegible]	[illegible]	1[illegible]	4[illegible]	1,[illegible]25	1,[illegible]	20[illegible]	180		6			132	1[illegible]

Marriage rate per thousand of the population, 9.37

TABLE No. 3.

SHOWING CAUSES OF DEATH WITH AGES OF DECEDENTS TOGETHER WITH THE SEX AND NATIVITY, ALSO THE DEATH RATE PER THOUSAND OF THE POPULATION FROM EACH DISEASE

CAUSES OF DEATH	AGE BY YEARS.										SEX.		NATIVITY				
	1 Year and under	1 to 2 Years.	2 to 5 Years.	Total under 5 Years	5 to 10 Years	10 to 20 Years.	20 to 40 Years.	40 to 60 Years	60 to 80 Years	80 Years and over	Male	Female	United States	Foreign	Total both Sexes	Annual Death Rate per 1,000	Colored
ZYMOTIC																	
Small Pox																	
Measles			1	1	1						1	1	2		2	0 01	
Scarlet Fever	3	2	10	15	8	1	1				14	11	24	1	25	0 14	1
Diphtheria	3	39	128	170	63	12	6				123	128	249	2	251	1 41	3
Croup	9	14	29	52	10	1					31	32	62	1	63	0 35	2
Whooping Cough	1	1	3	5	1						4	2	6		6	0 03	
Typhoid Fever	1			5	3	21	4		5		39		54	32	86		3
Malarial Fevers	1	1	5	7	1	8	7	3	9	2	20	17	31	6	37	0 20	
Diarrheal Diseases	18	56			1		4				126	142	256	15	271	1	
Other Zymotic Diseases	4			45	1	3		5	4		35	32			67		

CONSTITUTIONAL																									
Cancer					.		.		9	38	37	2	29	57		34	52	87	0	48	4
Phthisis Pulmonalis					1		1	266	1	228	1	283	185		266	162	435	2	40	2	
Marasmus and Scrofula	186	22	-	185	2							97	77	187			187	1	5		1
Other Constitutional Diseases	19	9	1	45	8	18	35	26	10	.		82	60		58	44	142	0	8		8
LOCAL.																									
Nervous																									
Apoplexy																									
Epilepsy		2*	*	3*	*	*	8	8	13	.		61	57	37	7	1	8		11		1
Meningitis		3	1	4	1	2	5	7	23	6		29	26	24	2		51	0	28		2
Convulsions	57	24	25	106	14	9	18	12	5			94	70	135	29	164		0	92		6
Other Nervous Diseases	154	28	16	198	2		4	1				108	97	199	6	205		0	15		8
Circulatory—	4	19	-	66			25	27	32		2	93	54		15	52	167		93		4
Diseases of the Heart			1	1	-	16	44	76	67		12	99	113	111	1	1	212	1	1		7
Other Circulatory Diseases					1	3	8	11	-		3	2	13	22		11	33		18		1
Respiratory—																									
Bronchitis	52	26	17	95	4	4	2	26	39		18	84	114	131		67	198	1	1		1
Pneumonia	43	21	32	96	8	18	62	5	47		-	162	32	174		12	244	1	65		17
Other Respiratory Diseases	13	3	11	27	4	3	13	16	15		5	43	40	49		34	83	-	46		6
Digestive—																									
Diseases of Stomach and Bowels	112	14	10	136	6	6	19	23	18		9	1	1	112	169		44	213	1	19		6
Peritonitis	4	..	3	7	1	3	12	6	2		..	15	16	17		14	31	0	17		2
Diseases of the Liver		2	...	2	2	2	6	2	12			31	18	16		33	49		27		
Other Digestive Diseases	1		1	2	....		2					4	3	4		3	7	0	4		

*Following Diphtheria

TABLE No. 3.—Continued.

SHOWING CAUSES OF DEATH, WITH AGES OF DECEDENTS TOGETHER WITH THE SEX AND NATIVITY ALSO THE DEATH RATE PER THOUSAND OF THE POPULATION FROM EACH DISEASE

CAUSES OF DEATH	Age by Years										Sex.		Nativity				
	1 Year and under.	1 to 2 Years	2 to 5 Years	Total und 5 Yrs.	5 to 10 Years	10 to 20 Years	20 to 40 Years.	40 to 60 Years.	60 to 80 Years.	80 Years and over	Male.	Female	United States.	Foreign.	Total, both Sexes.	Annual Death Rate, per 1,000.	Colored.
LOCAL.—*Continued.*																	
Urinary Organs –																	
Bright's Disease and Nephritis	1		2* 11	12	5	7	38	44	43	4	79	74	81	72	153	0 87	6
Other Diseases of Urinary Organs			.		.	2	2	6	14	1	15	7	11	14	25	0 14	.
Other Local Diseases							3	5	1		4	5	3	6	9	05	
DEVELOPMENTAL.																	
Children—																	
Asthenia and Premature Birth	109			109						.	64	45	109		109	61	2
Congenital Deformity	15	1		16	.						8	8	16		16	0 9	1
Other Diseases of Children	47			49							26	23	46	.	47	27	2

Developmental.—*Con.*

Women

Puerperal Diseases	25	1	.	26	15	11	26	14	1								
Old Age	1	37	31	27	42	36	33	69	0.38	..							
Accident and Violence.																	
Accidents	1	1	10	12	9	14	41	30	13	3	57	25	66	56	122	0.68	2
Homicide	1	1	..	1	.	1	1										
Suicide	9	12	2	20	3	8	15	23	0.13	1							

RECAPITULATION.

Population January 1st, 1898, ... (estimated) 178,033

Total Deaths from Zymotic Diseases	808	Death Rate	4.54
" " " Constitutional Diseases	853.	" "	4.79
" " " Local Diseases	2,012.	" "	11.30
" " " Developmental Diseases	269.	" "	1.51
" " " Accident and Violence	146.	" "	0.82
Total Deaths	4,088.	Total Death Rate	22.96

Total Still Births 277

TABLE No. 4.

SHOWING MORTALITY BY MONTHS WITH AGES OF DECEDENTS, TOGETHER WITH SEX NATIVITY AND SOCIAL STATE.

Ages	January.	February.	March	April.	May	June	July	August	September.	October.	November.	December.	Grand Total
Under 1 Year	75	79	75	66	[illegible]	62	141	176	86	88	67	49	1074
Between 1 and 2 Years	24	20	22	22	18	20	34	45	28	20	13	20	292
" 2 " 5	45	37	56	37	2	25	32	16	22	33	32	28	357
Total under 5 Years	144	129	154	128	122	143	197	237	136	141	102	97	1723
Between 5 and 10	18	13	10	19	17	16	9	4	13	3	12	10	134
" 10 " 20	2	17	15	16	15	21	6	1	19	2	18	21	198
" 20 " 30	27	36	41	35	27	28	21	34	34	34	28	36	376
" 30 " 40	30	26	25	27	32	37	33	30	23	29	2	26	352
" 40 " 50	31	23	34	24	25	18	24	2	30	33	23	25	31
" 50 " 60	22	35	25	23	29	29	19	25	18	25	23	22	296
" 60 " 70	37	24	32	30	26	28	25	33	24	23	16	32	320
" 70 " 80	19	18	25	15	13	22	10	16	12	22	24	18	214
" 80 " 90	4	6	1	12	6	9	6	8	8	6	11	11	97
" 90 " 100	2	1	4	2	1	1	1	2	1	1	3	2	20
Total	354	328	368	328	313	352	381	425	323	361	287	292	4154

TABLE No. 4—Continued.

	Jan	Feb	March	Apr	May	June	July	Aug	Sept	Oct.	Nov	Dec	Grand Total
SEX													
White—Male	188	162	187	[illegible]	[illegible]	173	181	22[illegible]	173	165	143	180	2 363
" Female	153	151	163	185	143	169	161	193	142	155	137	133	1 [illegible]
Colored—Male	6	7	9	3	5	5	3	8	5	9	3	3	66
" Female	7	8	9	8	6	5	6	4	3	8	4	6	74
Total	354	328	368	328	313	352	351	428	323	367	287	292	4 [illegible]
NATIVITY.													
United States	241	227	264	236	221	251	267	322	221	[illegible]	97	203	2 938
Foreign	113	101	104	92	92	101	84	106	102	92	90	89	1 [illegible]
Total	354	328	368	328	313	352	351	428	323	367	287	292	4 [illegible]
SOCIAL STATE													
Single	215	191	249	196	177	211	237	278	215	222	179	161	2 [illegible]
Married	90	89	104	83	95	85	81	89	85	99	78	96	1 063
Widow	30	28	28	37	24	36	27	39	22	31	26	27	311
Widower	14	19	22	[illegible]	11	[illegible]	21	19	[illegible]	14	19	12	151
Not Stated	5	1	5	[illegible]	[illegible]	[illegible]	5	[illegible]	3	1	5	1	36
Total	354	328	368	328	313	352	351	428	323	367	287	292	4 [illegible]

TABLE No. 5.

SHOWING MONTHLY MORTALITY BY WARDS IN THE CITY OF NEWARK WITH POPULATION AND DEATH RATE OF EACH

WARDS.	Jan	Feb	March.	April	May	June.	July	Aug	Sept	Oct	Nov.	Dec	Total.	Population	Death Rate
First	15	18	17	12	13	17	15	15	13	13	8	21	177	9 124	19 77
Second ...	14	15	12	13	7	16	12	18	6	17	9	8	147	8,276	18 37
Third ..	14	9	16	11	10	10	13	10	6	11	10	9	129	7,545	16 12
Fourth	19	18	24	19	16	23	10	22	14	13	13	14	205	7 196	29 28
Fifth .	17	10	14	9	9	11	12	17	13	12	13	10	147	6,565	21 00
Sixth ..	44	45	41	40	44	33	37	54	40	27	23	29	457	23 296	19 87
Seventh	20	18	14	19	13	17	18	20	21	20	12	18	210	9 936	21 00
Eighth	39	27	37	20	29	28	36	42	32	37	30	32	389	17 250	22 88
Ninth .	9	10	13	11	11	14	8	13	8	12	7	10	126	7 806	15.75
Tenth	31	28	33	26	35	21	27	35	24	32	24	23	339	13 720	24 21
Eleventh .	16	14	19	10	17	11	13	13	8	13	9	13	156	9 727	15 60
Twelfth	38	2	40	33	3	39	52	5	4	41	35	32	4[illegible]	[illegible]	25 66
Thirteenth. . .	39	44	45	55	40	67	50	69	57	59	51	38	614	25 332	24 56
Fourteenth ...	8	6	5	9	6	6	5	4	4	8	5	4	70	5 885	11 66
Fifteenth.	13	14	15	19	11	16	21	[illegible]	11	17	13	1	186	[illegible]	26 66
Total by Wards	336	3 5	345	306	291	329	329	400	295	334	268	274	3 514	165 033	21 42
Public Institutions	18	23	23	22	22	23	22	25	28	33	16	18	2 4		1 54
Grand Total	354	328	368	328	313	352	351	425	323	367	285	292	3 [illegible]	165 033	22 96

Monthly Mortality by Wards.

TABLE No. 6.

Showing Monthly Mortality by Wards from Zymotic Diseases and other Causes

JANUARY

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
All Causes, all Ages	15	14	14	19	17	44	20	39	9	31	41	35	34	8	3	336
Rate Mort. Census 85	2	21	24	33	24	21	24	29	15	27	21	7	19	19	17	
All Causes, under 5 Years	6	6	4	10	7	22	11	31	1	9	1	41	23	2	3	143
Small Pox																
Measles																
Scarlet Fever							1				1					2
Diphtheria	1	4	2	5	1	5		7	2	2		3	5			36
Whooping Cough																1
Typhoid Fever					1		1			1	1			1		5
Malaria, Fevers			1	1	1			1								3
Diarrhœal Diseases											1					1
Cerebro Spinal Meningitis							1				1			1	1	3
Other Zymotic Diseases	1			5		1	1			1	1	3	2		2	17
Total Zymotic Diseases	2	4	3	11	3	1	4	8	2	4	5	7	7	1	5	75
Marasmus					1	1	1	1		1		1	1			7
Phthisis		3	3	1	1	3	3	5		4	3	3	1	1	2	33
Bronchitis	2	1	1		2	3	1	2		1	2	2	6		1	24
Pneumonia	3	2		2	2	4	1	2	2	1		7	2	1		29
Stricture																
Accidents			1	2				1								4

TABLE No. 6.—Continued.

SHOWING MONTHLY MORTALITY IN WARDS FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES

FEBRUARY.

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
All Causes, all Ages	18	15	9	18	10	45	18	27	10	28	14	29	++	6	14	30 5
Rate of Mort'y, Census of '85	24	23.	19	31	20	25.	22	20.	17	26	19.	20.	21	14	21	.
Al. Causes under 5 Years	4	5	3	10	5	28	12	8	2	9	5	14	17	3	4	124
Small Pox																....
Measles																....
Scarlet Fever																....
Diphtheria		1		2		+	1	2	1	2		2	2		1	18
Whooping Cough																
Typhoid Fever			1			1						1	2	1		5
Malarial Fevers	1															1
Diarrhœal Diseases			1									1	1		1	+
Cerebro Spina. Meningitis																
Other Zymotic Diseases				1		3	2			2		1	2	1		11
Tota. Zymotic Diseases	1	1	2	3		7	3	2	1	4		5	7	2	2	4
Marasmus	2		2		1	2	1			1	3	1		1	1	15
Phthisis	2	5	2		2		+	4	1	6		2	5		1	37
Bronchitis			1	1		4	3	2	2	2	1	6	2			24
Pneumonia	1	1	1	2	1	5	1	5	3	+	1		2		2	35
Suicide									1	1						2
Accidents	1				....	2							2		1	

TABLE No. 6.—Continued.

SHOWING MONTHLY MORTALITY IN WARDS FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES

MARCH.

WARDS.....	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Σ
All causes all ages	17	12	16	24	14	41	14	37	13	33	17	4	25	9	15	345
Rate of Mort'y, Census of 85	23	18	27	41	28	22	1	28	2	3	25	28	22	12	23	
All Causes, under 5 Years	6	5		1	3	28	5	7	3	13	9	21	22	4	7	147
Small Pox																
Measles																
Scarlet Fever						2					1					4
Diphtheria.....	1		2	3		3	2			5		3	5			24
Whooping Cough.																
Typhoid Fever						1		1				1	2			5
Malarial Fevers			2					1		1				1		5
Diarrhœal Diseases																
Cerebro-Spinal Meningitis.	1						1									2
Other Zymotic Diseases.	1	1		1		2		3		5		4	2	1		17
Total Zymotic Diseases																
Marasmus.....			2						1	2	1	2	2		1	11
Phthisis	2	1		3	3		1	7	3	7	1	2	3		3	36
Bronchitis	1			1		6	2	2	3	4	1	1				21
Pneumonia	2	4		5	4	6		5		4	4	3	4			41
Suicide																1
Accidents	1				1		1			1		1				4

TABLE No. 6.—Continued.

SHOWING MONTHLY MORTALITY IN WARDS, FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES

APRIL.

WARDS.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
All Causes, all Ages	12	13	11	19	9	4	19	20	11	26	1	33	55	9	19	306
Rate of Mort'y, Census of '85	16	20.	19.	33.	18	22	23.	14.	19	24	13	23	26	22	27	.
All Causes under 5 Years	8	2	2	8	2	21	8	5	4	9	4	21	28	3	7	129
Small Pox	.	.	.	.	.	.	.	.	.	.						.
Measles													1			1
Scarlet Fever					1	1		.		1			3		.	5
Diphtheria				+	1	5	1	2	2	1		+	3		4	27
Whooping Cough			.							.					.	.
Typhoid Fever	1	1					1	1								4
Malarial Fevers	1			.							1					2
Diarrhœal Diseases			.								1		1	1		3
Cerebro Spinal Meningitis						.					1					1
Other Zymotic Diseases						2	1			2			4			7
Total Zymotic Diseases	2	1	.	1	2	8	3	3	2	4	3	4	11	1	+	52
Marasmus	1					3				1		4	4	1		14
Phthisis		3	1	2	. .	1	4	5	1	2	2		1	2	2	35
Bronchitis		1		2	2	2	1	1	2	5	1		3		1	27
Pneumonia	1		3			3	2	+	2	2	1	5	+	2	1	35
Suicide			1							1	.	1				3
Accidents			. .	1		1		1	.	2		1		1		6

TABLE No. 6. Continued.

SHOWING MONTHLY MORTALITY BY WARDS FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES.

MAY.

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total.
All Causes, all Ages	13	7	10	16	9	44	13	29	11	35	17	30	43	6	11	291
Rate of Mort'y Census of 85	17	11.	13	21	18	24	16	2	13	32	23	21	14	14	17	
All Causes under 5 Years	5	4	1	7	3	24	5	11	1	13	8	11	22	2	5	122
Small Pox																
Measles																
Scarlet Fever						1		2								3
Diphtheria				4		4		2	1	1			6			18
Whooping Cough										1						1
Typhoid Fever	1											1				2
Malarial Fevers			1	2		1		1						1		6
Diarrhœa Diseases		1			1	3										5
Cerebro-Spinal Meningitis																
Other Zymotic Diseases				1				2	1	1	1	1		1		8
Total Zymotic Diseases	1	1	1	7	1	9		7	2	3	1	2	6	2		43
Marasmus		1		1		2				1		1	2	1	1	1
Phthisis	3	2	1			3	1	4	4	2	2	4	5	1		32
Bronchitis						5		3		2		1	5		1	17
Pneumonia	2			1	1	1	2	3	1	2	3	3	4			23
Suicide											1	1				2
Accidents										1		1				2

TABLE No. 6.—Continued.

SHOWING MONTHLY MORTALITY BY WARDS, FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES

JUNE

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
All causes all ages	17	16	10	23	11	33	17	28	14	21	11	31	64	6	16	329
Rate of Mort'y. Census of '85	23	24	17.	39	22	17	20.	20	21	19	15	28	32	14	24	.
All Causes, under 5 Years	4	5	3	11	5	16	3	10	3	12	4	17	40	3	7	143
Small Pox	..	-	-		..	...	...		..		-			....	...	. .
Measles	.	....		..		...	...	....	.	-	...	.	..		.	...
Scarlet Fever		.....			...	2		1			.	.		1	...	4
Diphtheria	.	3	2	8	1	.		2		...		...	5		.	21
Whooping Cough	....		-			.		....		.	.....		..	.	...	..
Typhoid Fever	..		..	1	...	.	-				.	1	1			3
Malarial Fevers	...	...	.	...			..			1		.	1	.		2
Diarrhœal Diseases		..		...	2	5	1	1	.	.	1	7	3			20
Cerebro-Spinal Meningitis			..	.	..	.	...	.	1	.	1					2
Other Zymotic Diseases	.		..		1	1	..	.	.	2		1	.	.	1	6
Total Zymotic Diseases	....	3	2	9	4	8	1	4	1	3	2	9	10	1	1	58
Marasmus	..	3	.	2		2	...	1	. .	2		1	6	.	2	19
Phthisis	1	1	. .	2		5	4	4	1	2		4	5	1	3	33
Bronchitis	....			1	...	1	1	1		1	....	1	4			10
Pneumonia	....	.	.....	..	1	1	2	.	1	1	1	1	1	1	.	10
Suicide	.			..			.			-	.	1			.	1
Accidents	....			2	1		.	1	4	. .		1	6		2	17

TABLE No. 6.—Continued.

SHOWING MONTHLY MORTALITY BY WARDS, FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES

JULY.

WARDS.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
All causes all ages	18	22	13	11	12	37	18	31	8	27	13	52	8	8	21	329
Rate of Mortality (Census 85)	21	8	22	17	24	19	22	25	12	25	17	3	24	12	32	
All Causes, under 5 Years	7	7	3	5	4	26	9	21	2	19	2	34	31	1	15	176
Small Pox																
Measles																
Scarlet Fever													1			1
Diphtheria			1	1				1		1		1	3		1	7
Whooping Cough																
Typhoid Fever			1			1		1		1						4
Malarial Fevers			1					1			1			1	1	4
Diarrhœal Diseases	3	2	3	3	2	8	4	6		7	1	14	11		5	71
Cerebro-Spinal Meningitis													1			1
Other Zymotic Diseases						1		2		1		2	1			7
Total Zymotic Diseases	3	2	5	4	2	10	4	11		12	2	17	17	1	7	97
Marasmus	1	1				3	1	4		1		2	5	1	4	23
Phthisis	3	1	1	1		5		3	2		2	3	2	1	2	26
Bronchitis				1		1	1	1					1	1		6
Pneumonia	2			1	1	2		2		2	1	3			1	15
Suicide													1			1
Accidents		1	2	1			1		1		2	4	1			13

TABLE No. 6.—Continued.

SHOWING MONTHLY MORTALITY BY WARDS, FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES.

AUGUST

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total.
All Causes al Ages	15	18	10	22	17	54	20	42	13	35	13	5	69	4	18	400
Rate of Mort'y, Census of 85	20	25	17.	38	34	24	24	30	20	32	17	35	32	10	24	
All Causes, under 5 Years	9	8	4	10	10	38	7	19	8	24	5	36	48	3	8	237
Small Pox																
Measles																
Scarlet Fever													1			1
Diphtheria				1	1		1			2		2	4		1	12
Whooping Cough																
Typhoid Fever						1	1	5		1		1				9
Malarial Fevers				1							1					2
Diarrhœal Diseases	6	4		3	5	19		8	2	10	3	16	21	1	6	104
Cerebro-Spinal Meningitis							1									1
Other Zymotic Diseases			1	2			1	1		1	1	2	1			10
Total Zymotic Diseases	6	4	1	7	6	20	4	14	2	14	5	21	27	1	7	139
Marasmus	1	2				5		3	1	3		8	7	1		31
Phthisis	1	1	2	2	1	5	1	3	1	2	2		3		4	28
Bronchitis		1			1			1		2						5
Pneumonia	1			1		1	2	2		1		2	2		1	13
Suicide		1	1						1							3
Accidents				2		1		1				1	4			6

TABLE No. 6.—Continued.

SHOWING MONTHLY MORTALITY BY WARDS, FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES.

SEPTEMBER.

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Tot.
All Causes, all Ages	13	6	6	14	13	40	21	32	8	24	8	40	57	4	11	297
Rate of Mort'y, Census of '85	17	9	10	24	26.	21	25.	23.	21	22.	11	28.	26.	10	15	
All Causes, under 5 Years	5	3	1	8	3	20	9	15	1	12	5	20	2		7	136
Small Pox																
Measles							1									1
Scarlet Fever						1	1									2
Diphtheria				2	1	1	1			1	1		1			8
Whooping Cough																
Typhoid Fever				1	1	1		1		1		2	1		1	9
Malarial Fevers					1			1					1			3
Diarrhœal Diseases	2	1	1			4	2	2	1	2	2	4	6		2	33
Cerebro-Spinal Meningitis																
Other Zymotic Diseases				1	1		1	1			1	1	1			6
Total Zymotic Diseases	2	1	1	7	4	7	6	5	1	4	4	7	10		3	62
Marasmus				1		4	1	3		2		4	2		1	18
Phthisis				1	1	4	3	3	1	4		3	6		2	28
Bronchitis	1				1	1	1	1		1		2		1		9
Pneumonia		1				1				1		4	3		2	12
Suicide													2			2
Accidents	1				1			1		1		2	1			7

TABLE No. 6.—Continued.

SHOWING MONTHLY MORTALITY BY WARDS FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES

OCTOBER.

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total.
All Causes, all Ages	13	1	11	13	12	27	20	37	12	32	13	41	59	8	19	334
Rate of Mortality (Census of 85)	17	24	19	22	24	14	34	26	18.	27	17	29	27	19.	25.	
All Causes under 5 Years	4	6	4	5	5	15	8	13	4	14	3	22	25	2	10	141
Small Pox	...	..	...	.							..			...	.	
Measles				..							.				..	
Scarlet Fever										1		..	.	.....	.	2
Diphtheria		2		1		.	1	2	2	8	1	5	1		3	35
Whooping Cough	...												1			1
Typhoid Fever	1		1	.				2		1	.	5	2	..		12
Malarial Fevers			1						1							2
Diarrhœal Diseases	1			1	1	3			2	1	2	1	2	2	1	17
Cerebro-Spinal Meningitis															.	
Other Zymotic Diseases	.			1			1	2		2		2	2	.	3	14
Total Zymotic Diseases	2	3	2	3	1	4	2	6	5	13	3	13	17	2	7	83
Marasmus		1			.			2	.	2		6	2		1	15
Phthisis	3	2	3	1	2	4		4	1	1	1	1	10	2	2	38
Bronchitis		2			1	4		3		1		1	5	.	1	18
Pneumonia					2		2	2	1	3	1	1	1	.	2	16
Suicide	.	1					1					1			.	3
Accidents	1			.						1	1	2	2		1	8

TABLE No. 6.—Continued.

SHEWING MONTHLY MORTALITY OF WARDS FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES

NOVEMBER

WARDS.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total.
All Causes, all Ages	8	9	1	13	13	23	12	30	7	24	9	35	51	5	19	208
Rate of Mort'y, Census of '85	11	14	15	22	23	16	14	21	11	2	12	23	24	12	25	
All Causes under 5 Years	3	1	1	6	5	11	3	10	3	5	4	16	25	....	9	102
Small Pox			..	...					.		..	.		..	.	
Measles	.											.		..	..	
Scarlet Fever	..		.								.	..	..		....	
Diphtheria	....		2	2	1			2		7	....	1	3	1	2	21
Whooping Cough	..												....	..	.	
Typhoid Fever	.	1			1					2		1	2		1	8
Malarial Fevers	.			....		1		1			1	.		1		4
Diarrhœal Diseases	..	1		1					1	1		..	2			6
Cerebro-Spinal Meningitis			.											..		
Other Zymotic Diseases						1	1	3				1	1			7
Total Zymotic Diseases		2	2	3	2	2	1	6	1	1	1	3	5	2	3	16
Measles	.		1		..	2		2		1		4	2		1	13
Phthisis	. ..	1	2	2	2	2		2	3	2	2		1	7	.	2	25
Bronchitis										1	1	1	5		3	11
Pneumonia	.	1	1		1			2		2	2	5	4	1		22
Suicide	. . .			1			1	..	2							4
Accidents	. ..	1			1		.		1		...		.			4

TABLE No. 6.—Continued.

SHOWING MONTHLY MORTALITY IN WARDS, FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES.

DECEMBER.

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
All Causes, all Ages	21	8	9	14	10	29	18	32	10	23	13	35	38	4	10	274
Rate of Mort'y, Census of '85	28.	12	14	24	17	15	22	23	15	20	16	23	17	8	13	
All Causes under 5 Years	4	6	4	2	3	8	8	17	2	12	3	7	19	.	2	97
Small Pox				..					.							
Measles	.			..							....			.	...	
Scarlet Fever			.								.	..				
Diphtheria	..	4	.	2		1		5	.			1	4	.	1	18
Whooping Cough				.						2	1					3
Typhoid Fever		.	1	2			1	2				2				8
Malarial Fevers									1				.	.		1
Diarrhœal Diseases			.			1		1				.	1			3
Cerebro-Spinal Meningitis			.													
Other Zymotic Diseases				1	1	1		1	1		.	.	1			6
Total Zymotic Diseases		4	1	5	1	3	.	9	2	2	1	3	6		1	39
Marasmus	2					2	3	1					1			9
Phthisis	2	1	1		2	5	2	2	2	3	2	6	3	1	2	34
Bronchitis	1	1			1	2	2	2		6		1	2		2	2
Pneumonia	4	1	2	3	1	1	1	2		1		7	5			28
Suicide															.	
Accidents	1				.	2	2			2	1		3		1	12

REPORT OF ATTORNEY.

REPORT

OF THE

Attorney of the Board of Health.

NEWARK, N. J., January 7th, 1889.

To the Honorable, the Board of Health of the City of Newark, N. J.

GENTLEMEN:—Your Attorney herewith submits a brief report for the year 1888.

First:—Violations of the Code or Ordinances.

There were pending at the close of the year 1887, 13 prosecutions for violations of the Health Ordinances. During the year 1888, prosecutions were started against citizens for the same cause in 96 cases, making 109 prosecutions in all. The disposal of these cases is shown by the following table:

Judgments recovered and paid		7
Judgments recovered, but unpaid		5
Defendants acquitted		7
Discontinuance without costs		13
Defendant returned, not found		2
Summons not served		4
Summons withdrawn		1
Discontinued on payment of costs		
Costs actually paid	55	
Costs not yet paid	10	65
Pending		5
Total		109

The policy of using the courts as a means of coercion rather than [illegible] and in most cases where the defendant has expressed a willingness to comply with the Health laws, he is allowed to do so, and pay the accrued costs without the penalty. This course was persued in the cases in the foregoing table referred to as "discontinued on payment of costs," or in 65 out of a total of 109 prosecutions. The wisdom of this course is frequently attacked, but in any judgment no other [illegible] laws. It occasions less friction between the Health authorities and the property owners of the city, than would a vigorous enforcement [illegible] compliance. The delinquent citizens is just as fully convinced of the [illegible] penalty, and has infinitely more respect for the policy that looks to the observance of the Health laws, rather than the filling of the [illegible] a heavy burden of taxation.

The fines collected in the seven cases in which the judgments have been paid, amount to $145 00, all of which has been turned over to the Health Officer.

The authority of the Board has not been seriously challenged during the year, and there are no pending cases of such interest as to need mentioning

Second.—Violations of milk law.

Sixteen suits have been instituted during the year against violators of the milk law. All have been for selling milk below the state standard. The cases have been disposed of as follows

Fines paid	7
Costs paid and settlement by Board	5
Defendants acquitted	3
Juries disagreed	2
Defendant returned, not found	1
Pending	1
Total	19

The fines paid amounted to..... ...	$200 00	
With costs in settled cases, milk analysis fees paid	15.00	
		$215 00
Which amount has been disposed of as follows		
Paid to Health Officer	$115 00	
Costs paid in lost cases.....	74 06	
Cash in Attorney's hands.....	25 94	
		$215 00

The costs in cases lost, for which the Board was liable, were paid from the fund in the Attorney's hands by authorization of the Board and include some small items for typewriting milk forms.

One of the milk cases lost, that against Samuel Crane, has been appealed and will be tried at the present term of the Essex Courts.

So much for the litigation of the Board. The other work of the Attorney is hardly capable of review in a report, yet it is an important part. It is the uniform practice to communicate by letter with citizens against whom complaints have been received from the Health Officer, whenever the nature of the complaint makes it possible and reasonable so to do. Outside of the violations of the milk law, three hundred and ninety three complaints have been sent to the Attorney by the Health Officer, and the Board can judge of the correspondence and interviews attendant upon so many complaints.

The Sanitary Code, put in operation during the year makes the Board's work much more efficient, as under it, a great many matters needing attention from the Health Office can be reached that were before maintained in open defiance of both common and sanitary sense. The distribution of copies of the Code among citizens has already familiarized a great many with its provisions and the excuse of ignorance is not so frequently and so justly made as formerly.

Respectfully submitted,

JOHN R. HARDIN,

Attorney of the Board of Health

REPORT OF CHEMIST.

REPORT

OF THE

CHEMIST of the BOARD of HEALTH.

NEWARK, N. J., January 1st, 1889.

To the Honorable the Board of Health of the City of Newark, N. J.:

GENTLEMEN:—I herewith submit my report of the work done in my department since my appointment as your chemist.

At the time of my appointment I was unable to receive samples of milk for analysis, as under the existing laws relative to the adulteration of milk, I was not duly authorized to make such analysis. That difficulty was removed, however, by the State Board of Health conferring upon me the necessary power early in January of last year and I have since made analysis of all samples the Milk Inspector has delivered to me.

It would be superfluous, and neither do I feel prepared to discuss in this report the advantages of a perfectly pure milk supply to our citizens. I do wish, nevertheless, to devote some space to a series of analysis I have made of milk with the hope that the results might be of value in helping to answer some of the many questions that are frequently asked about it, concerning the fairness of the State standard of 12 per cent. of milk solids, the quality of milk from fresh cows, the quality of milk from individual cows, of the milk remaining in the can after the larger portion had been dipped out and sold, etc. These are tabulated as follows.

REMARKS.	Lactometer.	Total Solids.	REMARKS.	Lactometer.	Total Solids.
Herd Milk		13 92	Herd Milk, 15 cows	115	13.72
" " 10 cows	116	13 28	" "	113	13 38
" "	119	14.04	" " 5 qts. in can,	112	13 28
"	115	14 12	One cow's milk	115	12 7
" "	116	13 07	" " "	112	13.22
" " same next milking,	118	13.34	" " "	110	14 43
Herd Milk, 10 cows after being driven over route, 6 qts. left,	118	12 99	" " " strippings,	97	17 51
Herd Milk, full can	111	13.18	One cow's milk,	106	12 60
Herd Milk, same after being driven over route, 5 qts. left	111	13 18	" " "	111	13 67
Herd Milk,	126	12.69	" " "	110	13 09
" "	111	12 37	" " "	119	13 81
" "	107	12.38	" " "	113	13 81
" "	113	14.05	Fresh cow	115	2 87
bottom of can,	112	13 23	" "	108	12.79
Herd Milk, same full can,	108	13.24	"	119	12 34
			Alderney cow,	110	13.45
			Holstein cow fresh, 15 qts per day,	117	12 86
			Cow supposed to [illegible] milk	121	14 4

By examining the above table it will be found that in no case did the solids in herd milk fall below 12 38 per cent., and that the average was 13.31 per cent. In the case of individual cows, the lowest was 12 6 [illegible] which, as it is, would probably be the same as for herd milk, was for whole milk 13 04 per cent. The average for the four fresh cows, 12.79 per cent., would indicate that they do not give milk quite as rich in solids, still it is well up above the requirements of the statute.

In the next table will be found some special analysis of milk from [illegible] cows. Although [illegible] is may not be much

practical value, as they are so incomplete, they show that further experiments in the same direction would be desirable.

REMARKS.	Lactometer	Total Solids
One cow's milk, fore milk,	127	11 12
Some " " whole "	107	14 00
One " "	107	15.17
Same " " 10 days later,	109	12.28
One " "	126	13 35
Same " " 3 weeks later,	114	12 78
One " " coming in in 12 weeks,	121	17.24
Same " " 4 days later,	124	17 27
Alderney cow,	98	17.11
Same " strippings,	86	19 64

During these examinations a sample of milk was brought to me by a milkman, who said that it came from a small herd of seven cows at Lyons Farms. The solids in this sample were so low that I requested another sample and found the same results a few days later. I then determined to visit the farm from whence the milk came and see the cows milked. This I did and found the herd, as far as I was able to judge, in splendid condition. The sample I then took, I found considerably richer in solids, although not up to the average for good herd milk. I also took samples from the two cows that were supposed to give the poorest milk and the analysis, together with others of milk from the same herd are as follows.

REMARKS.	Lactometer.	Total Solids.
Herd of 7 cows March 1,	105	12 2
" " " " " 3,	105	12
" " " " " 8,		12 59
(A) cow same herd March 8, supposed to give poorest milk,		1 68
(B) cow same herd March 8, supposed to give poorest milk,		13 5
(A) cow April 9, fore milk,	118	1 06
(A) " " " whole "	112	11 75
(A) " " " strippings,		13 5

Thus it will be seen that there are occasionally individual cows [illegible] 12 per cent of solids, [illegible] [illegible] the case of the two cows supposed to give poor milk, [illegible] [illegible] and always be relied upon [illegible] the quality of milk.

In the following table will be found the results of the analysis of [illegible] by the inspector during the year

No. Sample	Water	Total Solids	Fat.	Solids not fat	Specific Gravity	Remarks
49	89 43	10 57	2 57	8	1 02744	Watered milk.
96	89 11	10 89	2 66	8.23	1 02813	" "
97	88 91	11 09	2 86	8.23	1.02723	" "
98	87 10	12 90	3 36	9.54	1 03266	Good "
99	89 47	10 53	2 78	7.75	1 02693	Watered "
100	89.62	10.38	2 89	7.49	1 02619	" "
101	90 43	9 57	08	9.57	1 03391	Skim "
93	90 17	9 83	1 55	8.28	1 02561	" " mixed with whole milk.
89	89 38	10 62	2 96	7 66	1 0253	Watered milk
88	88 65	11.35	2 03	9.32	1 03185	Skim milk mixed with whole milk.
50	89 30	10.70	2 46	8.24	1.02784	Watered milk
52	89 71	10.29	2 57	7.72	1 02535	" "
51	89.99	10 01	2 61	7 40	1.02396	" "
55	88 23	11.77	2 43	8 34	1.03214	" "
92	91.79	8 21	2 37	5.84	1 01914	" "
81	89 39	10 61	2 79	7.82	1 02523	" "
83	89.80	10 20	2 58	7.52	1 02558	" "
87	92.84	7 16	1 99	5.17	1 0169	" "
86	87.29	12.71	4 12	8.59	1 02634	Probably watered
82	91.04	8 96	2 57	6 39	1 02059	Watered milk

Of the entire number of samples, there was but one (No. 98) that was not either skimmed or watered; the amount of water being added varying according to calculations that are somewhat in favor of the milkman, from 5 to 45 per cent

It has often been claimed during trial or at other times, that in the case of a milk containing say, about 11 per cent of total solids, that it was very near the standard of 12 per cent., being only 1 per cent below it There is, I think, considerable misunderstanding about this; among the jurymen at least

If a milk originally had 12 per cent. of solids, and was found on analysis to have 11 per cent the quantity would be reduced by 1 12 or 8 1 3 per cent instead of the seeming reduction of 1 per

cent. and as we know that average herd milk contains 13 per cent. [illegible] the return reduction in the case of an adulterated milk having 11 per cent., would be about 15 39 per cent.

In connection with this. The same milk having 11 per cent. of solids would consequently have 89 per cent of water, or 1 per cent. [illegible] per cent as we have seen in apparently small amount which does not by any means represent the amount that was added to the milk. The amount of this extra water can be estimated by a very simple calculation, in which the per cent. of solids not fat serves as a basis This factor is a very constant quantity in milk, and rarely falls below 9 3 per cent However, to avoid any occasional error, it is costomary with many analysts to use 9 per cent as a basis; thus usually making an error in the favor of the milkman. The formula is 100 solids, not fat, 9 percentage of original milk Applying this to number 97 in the last table, we have 100 8 23-9, 91.44 per cent., the amount of the original milk in 100 quarts, the rest, 8 56 per cent being water. This, on account of the allowance before mentioned, is probably too low, and should be about 10 per cent

In addition to the examination of milk I would suggest that some attention be given to ascertaining the quality of the illuminating oils now sold throughout the city There is, as you are aware, a law on this subject, which requires that the oil shall not flash below 100° F. but the frequent explosions of lamps would indicate that it is sometimes violated

There are many other investigations that could be made, which would no doubt be beneficial to the pubic health, and of these I should think that examinations of the character of water used in the manufacture of popular beverages would be an important one.

In conclusion, I wish to compliment Mr. Negles, the Milk Inspector, on the [illegible] he has shown in taking samples for analysis he only having brought one sample to me that proved to be good milk, in fact that case he expressed his doubts as to it being had when he delivered it

Very respectfully,

HERBERT B. BALDWIN,

Chemist of the Board of Health.

FIFTH

Annual Report

—OF THE—

BOARD OF HEALTH

—OF THE—

CITY OF NEWARK, N. J.,

FOR THE YEAR ENDING

DECEMBER 31st, 1889.

NEWARK, N. J.
FRANCIS BELL, STATIONER AND PRINTER,
761 to 767 Broad Street.

1890.

FIFTH

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1890

BOARD OF HEALTH

—OF THE

CITY OF NEWARK, N. J.

OFFICE OF THE BOARD,
CITY HALL, THIRD FLOOR, ROOMS 5 AND 6.

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MR HENRY R BAKER,
MR TYLER PARMLY,
MR SAMUEL S SARGEANT,
DR. CHARLES M. ZEH,
DR HERMAN C. H. HEROLD,
DR. F. B. MANDEVILLE,
MR. WILLIAM B GUILD.

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On Sanitation Dr. Mandeville, Dr Zeh, Mr Sargeant, Dr. Herold, Mr Parmly.

On Laws and Ordinances. —Mr. Guild, Dr. Zeh, Mr. Baker

On Conference and Appointments —Mr Sargeant, Mr. Baker, Mr. Parmly

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HERBERT B BALDWIN, *Chemist*

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First and Eighth Wards Thomas E. Freeman.
Second and Fourth Wards —Bernard Nulty
Third, Ninth and Fourteenth Wards —Charles H. Edwards.
Fifth and Tenth Wards —Lewis H Bridgett.
Sixth and Seventh Wards. —William H. Tyle.
Eleventh and Fifteenth Wards David Duffy.
Twelfth Ward George W. Schmitt
Thirteenth Ward Victor L. Hesse

MEAT INSPECTORS

Werner Runge, D. V. S. Philip Miller

MILK INSPECTOR

[illegible] ry Negles

OUT-DOOR POOR DEPARTMENT.

City Dispensary, Centre Market Building, Room 12

CITY APOTHECARY

Thomas P Whitenack

DISTRICT PHYSICIANS AND ATTENDING PHYSICIANS TO DISPENSARY

First District, 1st and Eighth Wards —Dr. Ed. DeL. Bradin.
Second District, 2d, 3d and 4th Wards. -Dr. Arthur C. Dougherty
Third District, 9th and 10th Wards.—Dr. F. L. Meyer
Fourth District, 5th and 12th Wards —Dr. Philip Roth Jr.
Fifth District, 13th and 14th Wards -Dr Henry A Kornemann
Sixth District, 7th and 15th Wards (east of Newark St.)—Dr. Stephen W. Van Duyne.
Seventh District, 6th Ward Dr Vincent Nager.
Eighth District, 11th Ward and 7th and 15th Wards (west of Newark St.) — Dr Edward Everett

Regular meetings of the Board are held in the Mayor's office, City Hall, on the first Monday of each month, at 8 o'clock P M

REPORT.

ANNUAL REPORT

—OF THE

HEALTH OFFICER.

NEWARK, N. J., January 1st, 1890.

To the Honorable the Board of Health, of the City of Newark, N. J.

GENTLEMEN:—I have the honor herewith to transmit this, the [illegible] annual report of the Department of Public Health for the year ending December 31st, 1889.

As the executive officer of the Board, on whom the responsibility of the proper execution of its laws and ordinances is placed, and to whom the general public looks for the improvement in the sanitary condition of the city, I desire to call your attention to a few matters that demand more than a passing notice.

VITAL STATISTICS.

The City Clerk of our city as the register of vital facts and statistics, is the collector and custodian of the reports of Births, Marriages and Deaths. He has endeavored to the best of his ability during his term of office, to obtain correct returns of Births and Marriages, but from a comparison of the reports of 1888 and 1889, I am satisfied that matters instead of getting better, are growing worse. The difficulty is this: while, by virtue of a state law, he is the custodian of the reports, the Board of Health is made responsible for all suits for violation of this law. The law should be changed at once, so that the custodian will have the power to bring the suit, and this will correct the evil in a very short time.

BIRTHS

During the past year 5,134 births were reported. The totals for 1887 and 1888 were 4,846 and 5,111 respectively. Last returns [illegible] estimated at 5,134, we should have [illegible] 5,000, if not more.

Of the 5,134 reported, 5,064 were white and 70 colored, 2,587 were males and 2,547 were females. Boys, 2,211; girls, 2,376. 5,088 were legitimate and 46 illegitimate. The birth rate per thousand of the population was 26 87.

MARRIAGES

There were 1,646 marriages reported. The totals for 1887 and 1888 were 1,632 and 1,668 respectively. It is seen from this that 22 more marriages were reported in 1888 than in 1889. I cannot [illegible] 1,646 marriages were solemnized in this city during the year 1889. Of the 1,646 marriages reported, 1,604 were white and 42 colored. The marriage rate per thousand of the population was 8.61.

DEATHS.

The total number of deaths reported is 4,629, representing a [illegible] per thousand [illegible] estimated at 191,305, of 24.23. This shows an increase from 1888, when it was 22.96.

Of the 4,629 deaths, 4,474 were white and 155 colored.

Population, white (estimated,) 187,230, death rate 23 88.

Population, colored (estimated,) 4,075, death rate 38 03.

The deaths with the death rate by quarters was as follows.

First Quarter,		1,072, Death Rate	23.69
Second "		1,109, "	23.97
Third "	(Summer months)	1,284, "	27 26
Fourth "		1,164, "	24 32

The [illegible] deaths under 1 year was 1,152, and of these, 1,152 were under one year of age. If the deaths returned as "Premature Birth" numbering 151, in which case there was via-

Deaths from teething to a few hours only being deducted from the above, the deaths under five years of age would number 1,812, and under one year of age 1,001. The percentage of deaths under five years of age to the total number of deaths was 42.40. The deaths under one year of age, per thousand of births registered was 223, but as I have mentioned before, the reports of births are very incomplete, and this cannot be considered reliable.

The deaths referred to the zymotic diseases which had been 752 for 1887 and 808 for 1888, increased again during 1889 to 1,014

Of this class

Measles caused	21	deaths,	an	increase	over	1888	of	19
Fever Scarlet "	46	"	"	"	"	"	"	21
Diphtheria & Croup caused	366	deaths,	an	increase	over	"	"	52
Whooping Cough	"	39	"	"	"	"	"	"	33
Fever Typhoid	"	172	"	"	"	"	"	"	86
Fevers Malarial	"	32	"	a decrease	from	"	"	5
Diarrhœal Diseases	"	269	"	"	"	"	"	"	2

With the exception of 29 deaths in public institutions, they were divided among the different wards as follows:

1st Ward	30,	Death Rate	3.06	8th Ward	93,	Death Rate	5.21
2d "	50,	"	"	5.62.	9th "	15,	"	"	1.79
3d "	21,	"	"	2.59.	10th "	75,	"	"	5.07
4th "	38,	"	"	4.91.	11th "	52,	"	"	4.97
5th "	42,	"	"	5.96.	12th "	137,	"	"	7.21
6th "	156,	"	"	6.22.	13th "	172,	"	"	6.37
7th "	46,	"	"	4.11.	14th "	18,	"	"	2.84

15th Ward 42, Death Rate 4.49.

Of the constitutional diseases Phthisis Pulmonalis caused 485 deaths, an increase of 47 over the previous year.

Of the principal respiratory diseases, Bronchitis caused 210 deaths and Pneumonia 355

There were 95 deaths from accidents, 1 homicide and 29 suicides.

CONTAGIOUS AND INFECTIOUS DISEASES.

During the year 1888, there was an alarming increase in the number of cases of contagious and infectious diseases. The record is as follows:

Diphtheria,	1,282	cases, an increase	over	1888	333,	over	1887	660
Fever Scarlet,	744	"	"	"	"	"	278,	"	"	453
Fever Typhoid,	538	"	"	"	"	"	103,	"	"	413
Croup Membranous,	66	"	a decrease from		"	5,	from	"	18	

There was also a startling increase in deaths from these diseases as can be seen under the head of "Vital Statistics."

The first question that would naturally arise in this connection is: What is the cause and is there no remedy? By the provisions of our Code, the Board has the power to deal with these diseases in such a way as to conquer them, but it must be confessed that that authority is not exercised. This is the cause. With proper supervision this state of affairs should not exist and the Board should take hold of this matter at once with the determination to stamp them out. If a case of Small Pox occurs in the city every inhabitant is startled at once, there are large demands for vaccine, and the doctors are overrun with orders to call and vaccinate their patients. Every city of any size has its Small Pox Hospital which is used on an average about once in five or six years, and then only for a few weeks. Why? Because when a case occurs, rigid measures are adopted, and the disease is throttled at its very invasion. We all know that Small Pox is one of the most contagious of diseases, and it only illustrates that if the same measures were adopted in other diseases of the same class, we could stamp them out in the same way. Every day, under present circumstances, some poor child loses its life, and I can recall a few instances during the past two years where whole families of children have been wiped out, where only one case in each family need have occurred had proper measures been adopted. With due regard to our physicians, I am obliged to record the fact that there are a number who are very careless about reporting their cases, frequently the patient recovering or leaving before they think of their duty. This from the other

children of the family continuing to attend school, becomes another factor in the spread of contagion.

The question now is, what is the remedy? Two words will answer it, "Isolation and Disinfection." How are these principles to be carried out?

First:—Circulars should be sent to all physicians showing the necessity of the Board being advised of the existence of a case in order that the proper machinery may be put in operation to stop its spread then and there.

Second:—For the Board either to erect a Hospital for contagious diseases, or arrange with the Newark City Hospital authorities for a wing in their institution, in which to place all cases that cannot be isolated at home.

Third:—Circulars of instruction should be printed, to be left with a family and neighboring families for their guidance in the event of a case occuring.

When a postal reporting a case is received at the health office, a duplicate report should at once be sent to the Board of Education for their guidance. An inspector should be dispatched to the house where the disease exists, and if the case can be properly isolated he should see that it is done at once. A thorough inspection of the premises should be made and such questions asked as might ascertain where the disease originated, the circular of instruction should then be given to the family, and a placard stating what disease exists on the premises should be placed in a prominent position on the front of the house to prevent other persons from visiting the premises. If, however the inspector finds that it is impossible to carry out the principles of isolation, this should be reported at the office and arrangements made to remove the case to the hospital at once. At this point I might make this suggestion —A milk supply often times being the cause of an outbreak of disease, all milk dealers both wholesale and retail, should be required to register their names residence and sources of their milk supply at the office of the Board. In this way when an inspector states in his report where the milk is purchased, the original source can be traced and farms and dairies can be inspected at a moments notice, if thought advisable.

Under present rules the duty of furnishing a certificate allowing children living in an infected house to return to school is imposed upon the attending physician. This should be changed so that when the patient has recovered or death occured, the health department should be notified of that fact by the attending physician, upon postals to be furnished for that purpose the premises should then be disinfected under the personal surveillance of an inspector of this Board after which the placard can be removed and a certificate furnished by the health officer that all danger of communicating the disease to others has passed and it will be perfectly safe for any child to return to school.

To show results obtained by carrying out a plan of this kind, I will present a short extract from a report of Dr H B Baker, Secretary of the Michigan State Board of Health. He states "that in 118 outbreaks of Diphtheria in which isolation and disinfection or both were neglected, there averaged 11 79 cases and 2.71 deaths per outbreak, while in 78 outbreaks in which isolation and disinfection were both enforced, there averaged only 2 54 cases and 65 deaths per outbreak, indicating a saving of 9 25 cases and 2 06 lives per outbreak. The same results were attained with reference to Scarlet Fever and other contagious diseases. Thus the local boards of health and health officers in Michigan who faithfully enforced restrictive measures, had the satisfaction of knowing that their efforts proved of solid advantage in preventing much sickness and many deaths

I since ely trust that this, one of the most sacred trusts imposed upon a Board of Health, the saving of human lives will receive the attention it merits and that the measures mentioned above will be adopted and these diseases removed from our midst.

HOUSE TO HOUSE INSPECTION

This is one of the most important works ever undertaken by the Board. When finished we will have a compete sanitary survey of every piece of property in the city. This work was started in the Fall of 1885, and by the Fall of 1887, 14,283 houses were inspected with the result of ferreting out numerous cases of nuisances, defective plumbing etc. As at that time I however, the Board passed

an ordinance which is without doubt one of the best we have in our Code, that requiring all drains extending from houses to outside sewers and other receptacles to be inspected by an inspector of this Board and by him approved before being covered. The magnitude of this work was not ascertained until the ordinance was put in operation, but it has had the effect of stopping the house-to-house inspection, as the sewer work, looking after contagious diseases and examining into complaints occupies all the time of the inspectors. This inspection should however be completed, as it accomplishes the most toward sanitary reforms; improvements will be made more cheerfully by owners of property from notices sent out as a result of such inspection for the following reason. If a complaint against a certain piece of property is left at the office, an inspector visits the premises and if anything exists in violation of the Code, a notice is sent to the owner or agent at once, calling his attention to the same. The same thing may exist on the adjoining property, and fault is found that his property is the one selected on which to make the improvement. With a house-to house inspection, all parties are served alike, and after comparing notices and finding no one has been "neglected" orders are at once given for the work to be done. Another very important matter being accomplished by this work is the ascertaining that large numbers of individuals have sewer connections to their premises for which the city has never received any remuneration. From the work already accomplished, the city will be the richer by many thousands of dollars. With ten thousand more houses to be inspected, it can be readily seen that not only will many nuisances and cases of defective plumbing be found, but many more thousands of dollars will be placed in the City Treasury. How can this work be finished without additional help? If the Board will purchase a horse and wagon, one man can be detailed to look after the inspection of sewer drains, and the other seven can then continue this work.

THE OCCUPANCY OF BUILDINGS.

The occupancy of a building can be regulated by Section 12 of the Code. That there is terrific overcrowding and lack of ventilation

in a large number of Italian and Polish lodging houses, as well as in some tenements in certain sections of our city is well known. In the lodging houses mentioned, the people are crowded nightly with apparently no other object in view than that of the accumulation of money by the keepers. In the tenements we find large families occupying small and poorly ventilated apartments and with what results? That large numbers of children annually in these homes that under favorable circumstances would grow up to adulthood, those that do not have the seeds of disease sown in their constitutions to develop later in life, carry them to premature graves. What is our duty under such circumstances? So far as the lodging houses are concerned locate them and break up the business unless it is carried on as prescribed by the Board. As regards the tenement houses, enforce the provision of the Code relating to the sanitary condition of apartments, and by means of circulars of information, teach the people under instructions how to live and rear their offspring. Whatever officer has the courage of taking the initiative in a movement of this kind, as it is sure to bring the Board into a legal combat almost on its start. However it should be definately settled what the cubic feet of space per individual is to be allowed and then enforce the law at once.

INSPECTION OF ARTICLES OF FOOD AND DRINK.

Our laws governing meat inspection are as good as those of the Boards of Health in this country. But they do not go far enough. Meat inspection as at present carried on is simply an inspection of the carcass. Such an inspection is not sufficient to discover cases of disease. Every carcass should be examined. To be correct it should be carried out as follows:

Animals should be carefully examined after entering the slaughter-house and those unfit rejected. Any reason such as being too young, too old, sick, overheated from being driven too fast or too long a distance exists to grant a stay of slaughter for a sufficient time to remove the cause. After the animal is killed, not only should the carcass be examined, but the internal organs at the time of their

removal, for disease might have existed and escaped the observation of the inspector at his ante-mortem examination. We all know how careful the Hebrews are in regard to the meat they eat. The animal has to be killed by a "Schaechter," and after being opened, all of the internal organs as well as the carcass is carefully examined by that person. If any blemish or defect is found, the whole carcass is rejected.

While I do not think we should carry our rejections to the extent the Hebrews do, I think so far as the inspection is concerned, they set us a good example.

I do not know of any improvement that can be made in the inspection of meat in the shops, and of vegetables and fruit, except that when condemnation is necessary, all such articles should be injected or saturated with Carbolic Acid, to prevent a sale after the inspector leaves, which might possibly occur under present circumstances.

The inspection of milk is another thing that demands careful attention from a Board of Health. As carried on in this city in the past, it was not attended with the success it should have attained. This being recognized by the Board, the inspection was discontinued last September. A proper plan of inspection should however be devised at an early date and this work again started, as some dealers may take advantage of its discontinuance.

Other articles of food together with drugs should receive attention, the public at large being no doubt constantly imposed upon by unscrupulous dealers. Samples of these articles should be purchased, submitted to our Chemist for examination, and in case of adulteration, suit against the offender should be instituted.

COLLECTION AND DISPOSITION OF GARBAGE.

In a pamphlet recently published in England the author contended "that the main thing to attain for populations, is the highest procurable cleanliness of soil, air and water, and that an unhealthy town has no other meaning than a proportionate accumulation of decaying and putrescible matter, such as surface impurities in streets, yards and corners." In certain sections of our own city there are

and from our inhabitants, places the responsibility for the largest part of it on the parties who have contracted for the removal of our ashes and garbage When the contract for the collection of this material was signed, the contractor bound himself to collect in certain districts every day, and outside of these districts in the city limits every other day I am prepared through reports made to me by inspectors of the Board to show that he does not live up to this contract. That there are streets in the center of the city where the wagons do not go every day, streets in the outside districts where a week will elapse without a call, and certain streets where the wagons are not seen at all. The men who collect this material appear to have no definite rules for their guidance One day a wagon will pass through a street at seven a. m. The next day it is just as liable to be four p. m. as any other time when the wagon appears. Another [illegible] is the overloading of wagons. This is of daily occurrence all over the city I have seen the contents of boxes deposited on one side of the wagon by the collector, only to fall in the street on the other. Finally when the wagon starts for the "dumps" every inequality in a street causes more or less of the contents to fall from the wagon, so that by the time it reaches its destination a large quantity of material has been lost. With collections made in this manner is it at all strange that in our dirt streets, especially in the tenement districts, boxes and barrels are overturned as the quickest way to get rid of this waste. This is a very serious matter, and with the report made by a committee of this Board of the very successful methods by which this material is handled and disposed of in the cities of the West, the remedy is a very easy one Certainly the time is now at hand when, in the first place, the collections should be perfect, and in the next, that garbage should not be used to fill in our low lands on which, at no distant day, houses will be erected.

REMOVAL AND DISPOSITION OF NIGHT SOIL

The collection of this material is regulated by the Code, in the

consideration of this subject, we should start at the fountain head, and examine into the condition of the appliances used by the persons engaging in this business. We have at the present time nine persons licensed to do this work. Whilst all of the parties are supplied with pumps all but three of the dunnigans which are in good condition. Those belonging to these three are never in anything but a leaky and filthy condition. Our laws state that no work shall be done by the vacuum process where a pump can be used and yet this is being done by nearly all engaged in the work. The question might be asked why is this tolerated? The answer is, that in all instances where a complaint of abuse can be made against the accused suit is started, but in a city of this size, this work can be carried on during night and numerous instances missed where a violation takes place. A permit is also required to be taken before any work can be done, yet I am satisfied that a quantity of work is being done without the necessary permits being obtained, and the explanation of the other covers this. This brings us to a remedy and in this remedy another serious evil can be averted. At the present time the scavengers are dumping their refuse in different places around the city. If anything is said, the first reply is "Why don't the Board give us a dumping place? And this is just what the Board should do. Such a place should be provided, and at this place a plant should be erected for the destruction of this refuse. Then instead of having it spread broadcast upon the meadows and outlying lands to scatter the seeds of disease, it would be burnt up. In addition to this a series of permits could be devised for distribution to the scavengers, these to be collected when the material is deposited at the works and returned to the office. Permits would then be obtained when ever work was done, and in case material was taken to the works in dunnigans which should be in tanks, a report of the same could be sent to the office and the offender prosecuted.

LEGAL PROCEEDINGS.

I desire now to call your attention to the proceedings adopted in case of neglect on the part of an owner or agent to comply with a notice

when issued. It had, in the earlier part of the year, been the [illegible] the notice [illegible] as to your intentions." If the person receiving the notice informs the Health Officer that it is his intention to comply with it, or sends [illegible] effect is made out at once and filed away.

Now if the person sees fit to pay no attention whatever to the [illegible] ing it will come before any trouble occurs. If the plan outlined above is carried out, it will take only a very short time to demonstrate that the Board of Health when a notice is issued, intends to [illegible] receiving it

And now gentlemen I have only one favor to ask of you That you will carefully consider the recommendations I have made

The subjects dealt with need speedy action at your hands. I have endeavored to present facts only, while the conditions as represented do exist, the fault is not in all cases with the Board of Health for not wanting to do its duty, but from the fact of not having the means to carry out this work. Our great difficulty in the past has been that bugbear of Sanitarian's "Expense." Our ap- [illegible]

any reforms. To accomplish the measures recommended, will demand a much larger appropriation than we have heretofore received. It cannot be granted for a better object than that of showing a portion of our population how to live, but above all the saving of human life. In this city of 191,000 inhabitants, an appropriation of $13,000 is about one-half of what it should be. It is now the time of the year for the Board to make out its budget of expenses for the coming year, to be presented to the Common Council. This should not be for less than $25,000, and if, when that budget is presented, the gentlemen of the Board will appear before that body and demonstrate to them what a condition of things exists at the present time, and that these evils cannot be corrected, but will grow worse unless means are given whereby our work can be done properly, I cannot see how that amount can be refused. And if that amount is obtained, and continued from year to year, we can show results that will compare favorably with any other Eastern city, or in fact with any city of our union.

SANITARY DEPARTMENT AND MILK INSPECTION

The following gives a summary of all work accomplished in this connection during the year:

Notices served for abatement of nuisance	1,754
Abatements	1,654
Notices served to connect with sewer, plumbing and drainage	74
Rectifications	1,501
Permits granted for sewer connections	1,540
Number of sewer drains inspected	1,353
Permits granted for cleaning privy vaults	1,947
Permits granted for cleaning cesspools	41
Permits granted for keeping cows and goats	230
Number of samples of milk tested	233
Number of samples sent to chemist	7
Sunken lots filled	74

MEAT AND LIVE STOCK DEPARTMENT

The following gives the inspections in this Department, together with the condemnations for the year

Months	Beef Cattle	Hogs	Calves	Sheep	[illegible]
January.....	2,790	4,761	2,386	4,535	[illegible]
February	2,204	3,628	2,390	4 693	[illegible]
March	2,469	2,563	3,268	3,868	[illegible]
April.....	3,022	4,049	5 506	5,117	[illegible]
May	2,299	2,524	9 383	6,460	[illegible]
June	2,402	3,072	8,327	8,902	[illegible]
July.....	2,935	3,795	6,163	7,034	[illegible]
August.	3,110	4 257	5 626	7,371	[illegible]
September.. ..	3,061	3,670	4,761	7,402	[illegible]
October.....	3,137	4,621	4,217	8,100	[illegible]
November.	2,934	4,621	4 572	7,091	[illegible]
December. ..	3,546	6,465	4 163	6,079	[illegible]
Totals	33,909	48,006	60 762	76,652	219 329

The following are the condemnations

	NUMBER
Cattle - Beef	22
Calves ..	137
Sheep...	18

QUARANTINED

	NUMBER
Cattle..	4
Calves..	1

[illegible]

	[illegible]
Poultry.	[illegible]
Veal..	[illegible]
Pork.	8
Mutton	[illegible]
[illegible]	13

	NUMBER
Rabbits	6
	BARRELS
Potatoes	25
Apples	10
Musk Melons	1
Chestnuts	3
	BOXES
Peas	10
Peaches	10
Beans	5
	BUNCHES
Asparagus	100

Also a large quantity of small fruit upon stands in various parts of the city.

I desire to state in this connection, that during the month of December, a systematic disinfection of all slaughter houses as carried out by the U. S Government in cases of Pluro Pneumonia, was commenced under the supervision of Veternary Inspector Runge, and is to be continued until all slaughter houses and their surroundings are thoroughly cleaned.

OUT DOOR POOR

In the month of June last, after a long and painful illness, during the greater part of which he was at his post of duty, the Board lost one of its most faithful employes by death. I refer to Mr J. Frank Cramer, late City Apothecary He was ever faithful to the trust imposed upon him, and no employe of the City Government was held in higher regard by all who came in contact with him. He has gone to his reward. Let the encomium be applied to him "Well done, good and faithful servant." Since the death of Mr. Cramer, the duties of City Apothecary have been performed in a very creditable manner by Mr. Thomas P. Whitenack.

The following shows the work done in this Department during the year:

Number of patients treated at clinics.....	3,234	
Number of dispensary prescriptions filled....		4,445
Number of district prescriptions filled . ..		4,970
Total written and dispensed.. . ..		9,415
Vaccinations		335

The total amount spent for drugs during the year, was $96 5 46, making an average cost per prescription of nine and three fifths cents

The following table shows an abstracts the number of patients treated, visits made, prescriptions written, number of patients sent to hospitals and deaths for year 1889.

District	Location.	Patients	Visits Made	Prescriptions Written	Sent to Hospitals.	Deaths
First. .	1st and 8th Wards ...	317	720	447	28	13
Second..	2d, 3d and 4th Wards.	370	654	711	72	19
Third .	9th and 10th Wards.	448	1,237	1,031	22	20
Fourth .	5th and 12th Wards. .	886	1,474	908	83	50
Fifth.	13th and 14th Wards.	[illegible]	864	[illegible]	14	1
Sixth .. .	7th and 15th Wards, east of Newark St . .	662	1 754	633	30	26
Seventh	6th Ward.	471	859	319	19	11
Eighth ..	11th, 7th & 15th Wds, west of Newark St.	510	839	554	42	32
	Grand Total ...	4,251	8 421	4.970	345	181

The tables of Births Marriages and Deaths will be found appended to the report, and to those who are not versed in matters of statistics, are worthy of perusal.

Respectfully submitted.

DAVID L. WALLACE, M D.,

Health Officer.

TABLES.

TABLE No. 1.

SHOWING NUMBER OF BIRTHS REPORTED FOR EACH MONTH, WITH COLOR, SEX, NATIVITY OF PARENTS, ETC., WITH TOTAL FOR THE YEAR AND THE BIRTH RATE.

Month	Color.			Sex.			Nativity of Parents.									Name of C			
		White	Colored	Males	Females	Not Stated	Native	Foreign	Native Father, Foreign Mother	Foreign Father, Native Mother	Native Father, Nativity of Mother not Stated	Native Mother, Nativity of Father not Stated	Native Father, Foreign Mother	Foreign Father, Native Mother	Nativity not Stated	Stated	Not Stated		Illegitimate
Jan	554	547	7	272	278	4	269	198	55	27		...	3	1	1	272	282	550	4
Feb	440	435	5	211	226	3	164	193	52	26	1	.	2	1	1	254	186	438	2
Mar	380	375	5	182	197	1	126	186	44	20	...	..	2	2		220	160	374	6
April	425	419	6	224	201	..	165	182	48	23	...	3	4			227	198	420	5
May	307	300	7	177	188	2	147	157	38	17	2	2		1	3	221	140	305	2
June	394	385	9	203	190	1	133	187	42	28	..	..	2	1	1	230	164	390	4
July	328	324	4	158	170	...	114	161	30	10	...	.	....	.	1	190	138	328	.
Aug	800	494	6	271	229	.	210	193	56	29	2	...	6	4		269	231	491	9
Sept	494	490	4	230	260	4	175	209	66	37	.	2	1	1	3	299	195	492	2
Oct	398	397	1	213	183	2	166	175	32	24	...	1	..	..	...	192	206	398	
Nov	478	470	8	248	226	4	193	209	47	28	...	...	. .	1		270	208	477	1
Dec	376	368	8	198	178	.	131	175	33	27	..	.	7	2	1	232	144	365	11
Total	5,134	5,004	70	2,587	2,526	21	1,393	2,225	549	302	5	8	27	14	11	2,870	2,253	5,088	46

Birth rate per thousand of the population, 26.87

TABLE No. 2.

SHOWING THE NUMBER OF MARRIAGES REPORTED MONTHLY, TOGETHER WITH THE TOTAL FOR THE YEAR, AND THE MARRIAGE RATE

MONTH.	Total	White		Colored		Nativity		Foreign.		Nativity not stated		1st Marriage		2d Marriage		3d Marriage		4th Marriage		Marriage not Stated	
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
January	145	140	140	5	5	73	79	71	62	1	4	108	112	24	16	1				12	17
February	130	125	125	5	5	74	80	54	42	2	8	97	96	21	17	2	1	..	....	10	16
March	93	87	87	6	6	55	63	38	28		2	75	79	13	8	1				4	6
April	68	67	67	1	1	42	46	26	21		1	55	57	8	6	2		...	5th 1	3	4
May	118	116	116	2	2	64	72	53	43	1	3	86	91	18	11	2	1			12	15
June	268	267	267	1	1	145	155	121	104	2	9	218	209	32	27	1	3		1	17	28
July	117	111	111	6	6	64	68	53	44		5	97	99	15	12					5	6
August	119	113	113	6	6	65	69	54	44		6	97	100	16	12			....		6	7
September	89	87	87	2	2	43	48	41	33	5	8	67	67	12	8		3	...	.	10	11
October	126	124	124	2	2	67	74	59	50		2	96	93	20	20	1	1	1	....	8	12
November	158	158	158			80	99	78	56		3	119	120	25	25	2	1			12	12
December	215	209	209	6	6	115	122	100	91		2	168	161	29	34	2	1	1	.	15	19
Total	1,646	1,604	1,604	42	42	887	975	748	618	11	53	1,283	1,284	233	196	14	11	2	1	114	153

Marriage rate per thousand of the population, 8 61.

TABLE No. 3.

SHOWING CAUSES OF DEATH WITH AGES OF DECEDENTS TOGETHER WITH THE SEX AND NATIVITY, ALSO THE DEATH RATE PER THOUSAND OF THE POPULATION FROM EACH DISEASE

CAUSES OF DEATH	Age by Years.										Sex.		Nativity.			Annual Death Rate, per 1,000.	
	1 Year and under.	1 to 2 Years	2 to 5 Years	Total under 5 Years.	5 to 10 Years.	10 to 20 Years.	20 to 40 Years.	40 to 60 Years.	60 to 80 Years.	80 Years and over.	Male.	Female.	United States.	Foreign.	Total both Sexes.		Colored.
Zymotic																	
Small Pox																	
Measles	9	11	5	21							12	9	21		21	0 10	
Scarlet Fever	5	4	23	25	14	4					22	24	46		46	0 24	
Diphtheria	9	13		186	16	16	1	1			150	160	305	5	310	1 62	
Croup	4	10	33	47	8	1					29	27	55	1	56	0 29	
Whooping Cough	2	1		3	1						13	26	39		3		3
Typhoid Fever	1	1	4	6	11	54		22			85	84	115	57	172		1
Malarial Fevers	3	2	3	8	3	4	6	5	5	1	15	17	27	5	32	16	
Diarrhœal Diseases	176	49	12	237	5		5	8	1	4	124	145	252	17	269	1 4	5
Other Zymotic Diseases	35	7	6	4	1	4	3	5	9		35	34	55	11	66	36	

CONSTITUTIONAL																				
Cancer								7	39	32	4	23	59	26	50	82	0	42	4	
Phthisis Pulmonalis					1	33	294	123	34			285	200	308	177	485	2	53	15	
Marasmus and Scrofula	137	21	10	168	2							74	96	170		170		88	3	
Other Constitutional Diseases	20	15	15	50	9	9	35	14	15	1		67	66	138	25	133	0	69	5	
LOCAL.																				
Nervous—																				
Apoplexy							13	43	82	12		77	73	64	86	15	0	[illegible]	3	
Paralysis			*5	*5	*1	*3	2	11	21	7		14	36	37	13	50	0	26		
Meningitis	44	44	35	123	13	9	17	15	4	1		96	86	161	21	182	0	95	4	
Convulsions	172	26	30	228	7	2	3					119	121	237	3	240	1	25	14	
Other Nervous Diseases	35	13	18	66	7	12	19	30	29	7		83	87	129	41	170		89	9	
Circulatory—																				
Diseases of the Heart	*1	*3	2*	3	6*	7	2*11	11	45	70	70	16	112	123	109	121	230	1	20	10
Other Circulatory Diseases									3	4	3	5	9	6	1	5	15	0	07	4
Respiratory—																				
Bronchitis	71	40	17	128	5	4	12	19	36	6		117	93	155	55	210	1	09	10	
Pneumonia	45	42	51	138	12	10	60	82	43	10		196	159	234	121	355	1	85	16	
Other Respiratory Diseases	15	7	12	34	5	3	19	16	21	3		57	44	65	36	101		52	1	
Digestive																				
Diseases of Stomach and Bowels	16	16	6	138	3	3	20	33	26	4		117	11	174	53	22	1	18	8	
Peritonitis	3	4	1	8	4	9	14	13	6	1		30	3	39	21	61	0	31		
Diseases of the Liver	2			2		2	6	24	10	3		25	22	21	26	47		24		
Other Digestive Diseases	4	2		6					1			4	3	6	1	7	0	03	1	

*Following Diphtheria

TABLE No. 3.—Continued.

SHOWING CAUSES OF DEATH, WITH AGES OF DECEDENTS TOGETHER WITH THE SEX AND NATIVITY, ALSO THE DEATH RATE PER THOUSAND OF THE POPULATION FROM EACH DISEASE

CAUSES OF DEATH	Age by Years										Sex		Nativity		Total both Sexes.	Annual Death Rate, per 1,000.	Colored.
	Under 1 Year.	1 Year and under 2 Years	2 to 5 Years.	Total under 5 Yrs.	5 to 10 Years.	10 to 20 Years.	20 to 40 Years.	40 to 60 Years.	60 to 80 Years.	80 Years and over.	Male	Female	United States	Foreign			
LOCAL.—*Continued*																	
Urinary Organs—																	
Bright's Disease		1	1	2	4	6	14	33	16	2	38	39	42	35	77	40	8
Nephritis		1	2	3	6	2	20	29	28	2	47	43	43	47	90	47	3
Other Diseases of Urinary Organs		1		1		2	1	10	12	1	21	6	13	14	27	14	1
Other Local Diseases			1	1		1	10	15	5	1	13	2	13	2	33	17	1
DEVELOPMENTAL.																	
Children—																	
Asthenia and Premature Birth	151			151							84	67	151		151	79	7
Congenital Deformity	20			20	1						8	13	21		21	10	
Other Diseases of Children	55			55							36	19	54	1	55	28	1

DEVELOPMENTAL.—*Con.*																		
Women.																		
Puerperal Diseases ...						2	2[illegible]	2				21	2	9	26		15	1
Old Age								1	55	37	29	94	31	54	93	0	48	2
ACCIDENT AND VIOLENCE.																		
Accidents .	1	4	[illegible]	11	10	9	31	[illegible]	14	1	79	16	61	34	95		49	2
Homicide ..			....	.				1			1	...	1		1		5	
Suicide					.	+	12	13			2	9	10	13	29	0	15	1

RECAPITULATION.

Population, January 1st, 1890............ 191,305

Total Deaths from Zymotic Diseases........ .. .	1,014	Death Rate....................	5.31
" " " Constitutional Diseases... ..	870.	" "	4.56
" " " Local Diseases	2,271.	" "	11.89
" " " Developmental Diseases.... ...	349.	" "	1.82
" " " Accident and Violence.	125.	" "	0.65
Total Deaths.	4,629	Total Death Rate .	24.23

TABLE No. 4.

SHOWING MORTALITY BY MONTHS WITH AGES OF DECEDENTS TOGETHER WITH SEX, NATIVITY AND SOCIAL STATE.

AGES.	January.	February.	March.	April.	May	June.	July	August.	September.	October.	November.	December.	Grand Total
Under 1 Year.	62	85	6	75	56	103	215	137	[illegible]	[illegible]	51	[illegible]	1,152
Between 1 and 2 Years.	25	13	33	25	24	34	14	51	31	22	22	15	365
2 " 5 "	39	21	31	46	34	47	51	31	24	34	37	44	443
Total under 5 Years	126	125	140	146	154	184	33	219	133	134	115	158	1,963
Between 5 and 10 "	19	14	2	18	23	20	13	26	12	25	21	34	250
10 " 20 " ..	19	11	22	14	21	7	1	14	17	19	2	38	219
20 " 30 " ..	29	29	4	21	29	23	21	31	36	32	34	51	359
30 " 40 "	31	35	21	27	33	38	39	34	23	31	35	33	376
40 " 50 " ..	24	3	33	31	35	26	24	21	21	34	27	25	351
50 " 60 "	35	24	34	26	15	30	35	29	22	32	29	3	344
60 " 70	32	33	34	31	22	27	26	22	24	2	32	35	353
70 " 80 " .	13	25	27	25	17	15	19	23	23	2	14	19	245
80 " 90 "	5	15	2	11	2	6	14	11	4	5	7	5	107
90 " 100 "	1	.	.	3	1	2	.	1	2	3	3	1	17
Total . . .	342	346	384	311	317	375	531	441	312	370	362	432	4,123

TABLE No. 4 Continued.

	Jan.	Feb.	March	April	May.	June.	July.	Aug	Sept	Oct.	Nov.	Dec.	Grand Total.
SEX													
White Males	182	154	200	188	169	195	257	220	148	186	185	197	2 286
" Females	149	181	178	173	175	189	259	206	155	189	161	213	2 188
Colored Males	4	6	4	7	10	8	5	8	2	1	6	10	71
" Females	7	5	2	3	6	6	10	7	7	5	10	1	76
Totals	342	346	384	371	360	378	531	441	312	370	362	432	4,629
NATIVITY.													
United States	247	235	279	259	265	294	44	336	224	269	264	333	3 445
Foreign	95	111	105	112	95	84	91	105	88	101	98	99	1,184
Totals	342	346	384	371	360	378	531	441	312	370	362	432	4 629
SOCIAL STATE													
Single	206	187	230	230	236	246	393	276	187	216	213	285	2,925
Married	99	106	106	87	87	82	81	104	79	115	108	95	1 149
Widow	26	35	28	30	24	29	32	31	32	29	29	38	369
Widower	10	17	16	16	12	19	19	9	14	8	11	9	160
Not Stated	1	1	4	2	1	2	6	1	.	2	1	5	26
Totals	342	346	384	371	360	378	531	441	312	370	362	432	4 629

TABLE No. 6.

SHOWING MONTHLY MORTALITY IN WARDS IN THE CITY OF NEWARK WITH LOCATION AND DEATH RATE OF EACH.

WARDS.	Jan.	Feb	March	April	May.	June.	July	Aug.	Sept.	Oct	Nov.	Dec.	[illegible]	[illegible]	[illegible]	[illegible]	Rate
First	[illegible]	12	[illegible]	15	[illegible]	[illegible]	[illegible]	15	[illegible]	[illegible]	[illegible]	17	[illegible]	[illegible]	[illegible]	17	[illegible]
Second	7	13	14	12	9	12	21	22	6	21	17	26	185	8,858	20	81	
Third	14	11	10	16	10	17	13	9	8	17	4	14	143	8 097.	17	66	
[illegible]th	[illegible]	28	10	11	14	14	14	14	9	11	15	9	169	7 736'	21	84	
[illegible]	1	12	15	15	20	13	17	14	12	13	11	21	179	7.045	25	40	
[illegible]	[illegible]	32	52	37	37	49	88	60	43	48	49	63	598	25 060	23	82	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	33	2	[illegible]	[illegible]	32	[illegible]	[illegible]	36	36	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	4	11	[illegible]	12	1	[illegible]	[illegible]	1	9	[illegible]	[illegible]	[illegible]	13	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	1	33	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	32	[illegible]	11	[illegible]	[illegible]	
[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Fourteenth	9	7	10	8	4	6	6	6	8	11	1	6	82	6 317	12	98	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Total in Wards	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Public Institutions	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2	[illegible]	[illegible]	2	22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Grand Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

TABLE No. 6.

COMPARATIVE VIEW OF 27 OF THE PRINCIPAL CAUSES OF DEATH DURING THE YEAR 1889.

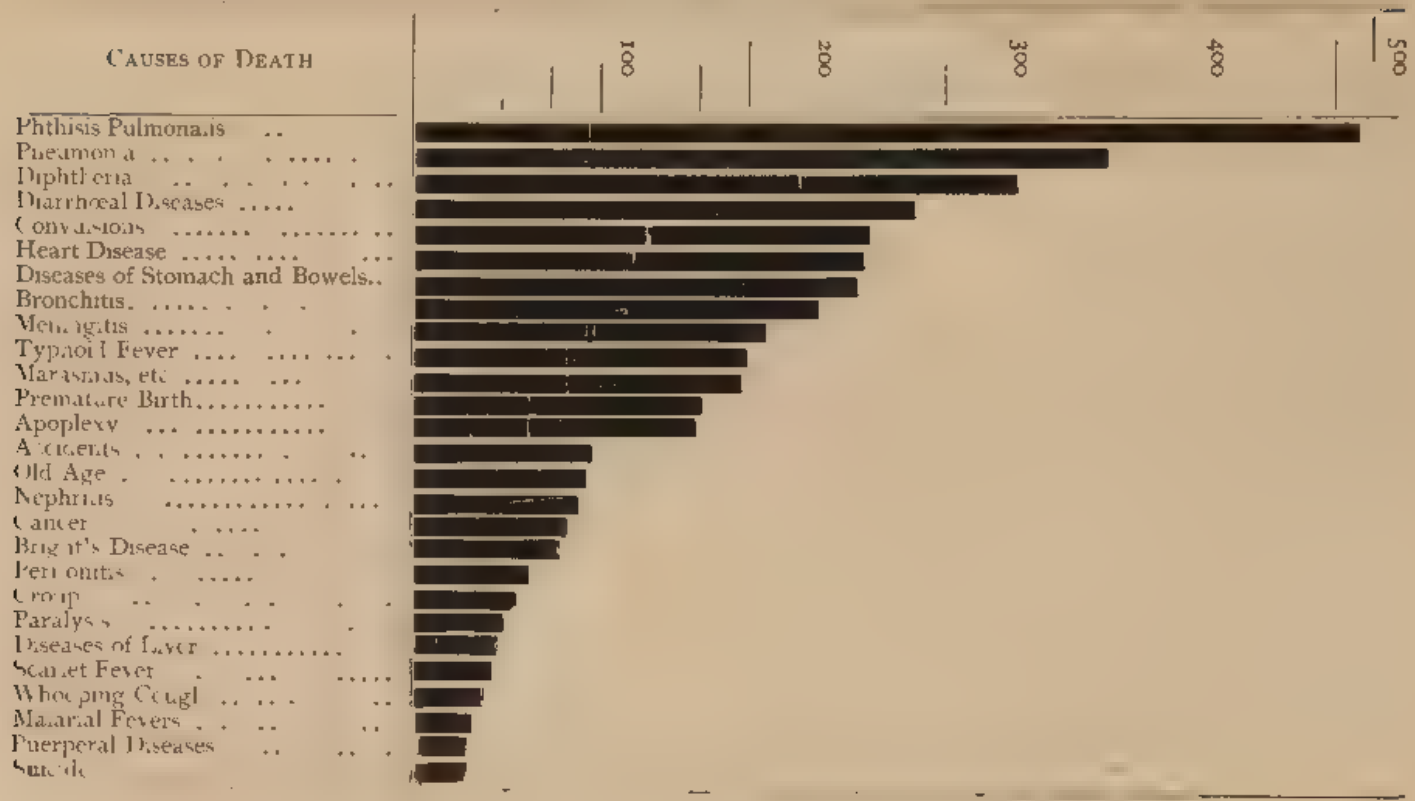

TABLE No. 7.

SHOWING DEATHS FROM 27 OF THE PRINCIPAL CAUSES.

CAUSES OF DEATH.	Total Number of Deaths from each cause.	Percentage of each cause to Total Mortality.	Deaths per Thousand Inhabitants.	Total Deaths per Sex. Male.	Female.	Total Deaths under 5 Years.	Percentage of each cause under 5 Years to Total Mortality.
Phthisis Pulmonalis...	485	10 477	2 53	285	200	.....	.....
Pneumonia	355	7 669	1 85	196	159	138	2 981
Diphtheria..... ...	310	6 696	1 62	150	160	186	4 018
Diarrhœal Diseases.	269	5 811	1 40	124	145	237	5 119
Convulsions.....	240	5 184	1 25	119	121	228	4 925
Heart Disease..... .	230	4 968	1 20	107	123	7	.151
Dis. of Stomach & Bow's	227	4 9-3	1 18	117	110	138	2 981
Bronchitis.....	210	4 536	1 09	117	93	128	2.765
Meningitis.	182	3 931	0 95	96	86	123	2.657
Typhoid Fever.	172	3 715	0 90	88	84	6	.129
Measles, etc.	1[illegible]	3 [illegible]	[illegible]	74	96	168	3.629
Premature Birth	151	3 262	[illegible]	84	67	151	3 262
Apoplexy. .	[illegible]	3 [illegible]	[illegible]	77	73	..	.
Accidents ..	95	2 [illegible]	[illegible]	79	16	11	23
Old Age.....	93	2 3	4[illegible]	29	64		
Nephritis	9	.44	4	47	43	3	64
Cancer	82	. [illegible]	42	23	59		
Brights Disease	[illegible]	1 [illegible]	[illegible]	38	30	.	[illegible]
Peritonitis	[illegible]	. 2 [illegible]	[illegible]	30	3	[illegible]	1[illegible]
Croup	56	1 2 [illegible]	2 [illegible]	29	27	47	1 15
Pleurisy...	[illegible]	1 [illegible]	26	14	3[illegible]	[illegible]	. [illegible]
Diseases of Liver	47	1 15	[illegible]	25	22	2	43
Scarlet Fever .	47	.963	43	22	24	25	6 [illegible]
Whooping Cough	3[illegible]	842	0 20	13	2[illegible]	3[illegible]	82
Malarial Fevers	32	691	0 16	15	17	[illegible]	1 2
Puerperal Diseases	29	604	0 15		2[illegible]	.	
Suicide.....	29	604	0 15	20	[illegible]		.

TABLE No. 8.

SHOWING DEATHS AND PERCENTAGES OF THE SAME TO TOTAL MORTALITY AT THE DIFFERENT PERIODS OF LIFE

AGES.	DEATHS.		Percentage to Total Mortality.	
Under 1 Year	1,152		24.88	
From 1 to 2 Years	368		7 95	
From 2 to 5 Years	443		9 57	
Under 5 Years		1,963		42 40
From 5 to 10 Years	250		5 41	
From 10 to 20 Years	219		4 73	
Total from 5 to 20 Years		469		10 14
From 20 to 30 Years	379		8 18	
From 30 to 40 Years	396		8 55	
From 40 to 50 Years	351		7 58	
From 50 to 60 Years	344		7 43	
Total from 20 to 60 Years		1,470		31 74
From 60 to 70 Years	353		7 63	
From 70 to 80 Years	248		5 36	
From 80 to 90 Years	109		2 36	
From 90 to 100 Years	17		0 37	
Total from 60 to 100 Years		727		15 72
Grand Total	4,629	4,629	100 00	100 00

Monthly Mortality by Wards.

TABLE No. 9.

SHOWING MONTHLY MORTALITY BY WARDS FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES

JANUARY.

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
All causes all ages	9	12	14	2	17	4	24	33	14	27	1	34	52	9	1	331
Rate of Mort'y. Census of 85	12	18	21	34	25	21	27	23	21	23	12	23	28	18	25	
All Causes, under 5 Years	1	4	4	6	3	18	1	12	3	1	4	13	31	2	5	120
Small Pox	..															
Measles								..								
Scarlet Fever								1		3		1		..		5
Diphtheria		..	1		1	2	2	1		1	1	2	4		1	16
Whooping Cough		..	...													
Typhoid Fever		2	1	1	2	2	1	4	3	1		1	3	1	1	22
Malarial Fevers		1				1					1					3
Diarrhœal Diseases										1		1				2
Cerebro-Spinal Meningitis							1						1			2
Other Zymotic Diseases	..		1	1		4			1	1			4	1	1	14
Total Zymotic Diseases		3	3	2	3	9	4	6	3	7	2	5	12	2	3	64
Marasmus				1		1	1	1		...						3
Phthisis	3	1		4	3	6	1	6	1	4	..	3	2	2	5	41
Bronchitis	1	1		1	1		2	1	1	2		1	6			15
Pneumonia	2		1	3	1	1	2	4	3	6	2	7	7	1	2	42
Suicide							1		1				1			3
Accidents					1	2		1		1		1	2		1	9

TABLE No. 9. Continued.

SHOWING MONTHLY MORTALITY BY WARDS FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES.

FEBRUARY.

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
All Causes, all Ages	12	13	11	28	12	32	19	27	14	25	19	33	54	7	16	322
Rate of Mort'y, Census of 85	16	20	17	45	21	16	23	1,	21	22	23	22	25	14	21	
All Causes under 5 Years	4	4	2	5	2	15	10	14	2	11	8	18	24	2	2	125
Small Pox									.	..	.					
Measles					..					.						
Scarlet Fever																
Diphtheria		1		3		2	1	3	1	3		2	5		1	22
Whooping Cough	1				.		1			...	.	1		1	.	4
Typhoid Fever	1	1	..	2		1	1	1		1	2		1		1	12
Malarial Fevers		.		1	1	1										3
Diarrhœal Diseases							2	...	.			1	1			4
Cerebro Spinal Meningitis						.		.				...			...	
Other Zymotic Diseases	..				1	1	.	1				1	3			7
Total Zymotic Diseases	2	2		6	2	5	3	5	1	4	2	5	10	1	2	52
Marasmus			1	1	1		1	1		2		1	2	.	1	11
Phthisis	2	3	1	1	2	3	1		3	5	2	4	6	3	3	39
Bronchitis		1	.	1		5	1	1		2	2	2	3	2	1	21
Pneumonia	.	1	..	5			1	3	2	1	3	3	4		2	28
Suicide						1										1
Accidents		.		1								1				2

TABLE No. 9.—Continued.

SHOWING MONTHLY MORTALITY BY WARDS, FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES

MARCH.

WARDS.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total.
All Causes, all Ages	15	14	10	16	15	52	19	34	15	29	18	52	57	18	15	364
Rate of Mort'y, Census of '85	20	21.	18	17	26	26	23	23	23	25	22	35	26	2	2	
All Causes under 5 Years	7	3	1	4	3	23	6	14	3	13	—	26	22	3	5	14
Small Pox																
Measles																
Scarlet Fever		1						1								2
Diphtheria	1	1		1		2	1	7		2	1	2	10		3	31
Whooping Cough	1										1					2
Typhoid Fever		1									1	1	2			5
Malarial Fevers			1													1
Diarrhœal Diseases						2		1						1		4
Cerebro Spinal Meningitis						1						2				3
Other Zymotic Diseases	1			1		2	1				1	4			1	11
Total Zymotic Diseases	3	3	1	2		7	2	9		2	4	9	12	1	4	59
Marasmus	1					1		2	1	2		2	1			10
Phthisis	1	2	1		3	4	8	5	3	2	3	3	8		1	44
Bronchitis	1				2	4	1	3		2	2	2	4		1	22
Pneumonia	2	1	1	1	3	—	2	1	4	8	2	8	6	1		47
Suicide											1	1		1		3
Accidents		1		1		..		..				1	1			4

TABLE No. 9. Continued.

SHOWING MONTHLY MORTALITY IN WARDS FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES

APRIL.

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Tot
All Causes, all Ages	18	12	16	11	18	37	17	38	12	17	22	47	52	8	22	341
Rate of Mort'y, Census of '85	24	18	24	16	26	19	2	23	18.	15	26	31	24	16	29	
All Causes under 5 Years	6	6	8	3	6	14	8	14	1	6		25	16	1	11	146
Small Pox																
Measles																
Scarlet Fever		1	1	1				2				1	1			8
Diphtheria	1				1	3	2	3		2		4	8			24
Whooping Cough						1						1			1	3
Typhoid Fever	1		1	1	1	1										5
Malarial Fevers					1											1
Diarrhœal Diseases							1					1	1			3
Cerebro Spinal Meningitis							1	1							1	3
Other Zymotic Diseases		3			1					1	1	3	1			11
Total Zymotic Diseases	2	4	3	2	4	5	4	6		3	1	10	11		3	58
Marasmus	1							3			1			1		6
Phthisis	4		1	2	3	3	3		2	5	1	5	2	1		32
Bronchitis	2		3		1	2					2	5	1			14
Pneumonia	2	1		3	3		6	5	2	1	3	8	3	2	2	41
Suicide				1		1								1		3
Accidents								1		1	1				1	3

TABLE No. 9.—Continued.

SHOWING MONTHLY MORTALITY BY WARDS, FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES

MAY.

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	—
All causes, all ages	11	9	1	14	2	37	13	32	1	33	17	49	62	5	19	339
Rate of Mort'y, Census of '85	18	12	15	24	34	19	16	21	18	25	22	33	29	8	24	
All Causes, under 5 Years	5	1	2	—	2	18	4	14	4	13	8	28	38	1	11	143
Small Pox																
Measles						1						2				4
Scarlet Fever				1	1	1			1		3		2		1	9
Diphtheria					3	4		4		5	1		4			33
Whooping Cough							1					2				4
Typhoid Fever	1			1									1		2	5
Malarial Fevers						1			1							3
Diarrhœal Diseases								1			2		1			4
Cerebro-Spinal Meningitis	2							1								3
Other Zymotic Diseases	1			1						1		2				5
Total Zymotic Diseases	4			4	4			6	2	7	7	13	13		3	71
Marasmus						3	1	1	1	3	1	1	5		1	17
Phthisis		4	1	1	4	3	2	2	1	3	2	3	9		3	36
Bronchitis	1		1			1		2		2	1	2	3		3	16
Pneumonia				1	1			1		5	1	5	3		1	19
Suicide					1	2										3
Accidents							1	3		1		2	1			

TABLE No. 9. Continued.

SHOWING MONTHLY MORTALITY BY WARDS, FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES.

JUNE.

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total.
All Causes, all Ages	20	12	17	14	13	49	15	30	9	25	21	57	42	6	16	352
Rate of Mortality, Census of 85	27	16	26	24	22	25	15	24	14	21	25	38	19	12	21	
All Causes, under 5 Years	2	6	6	8	6	36	3	16	5	16	11	32	25	2	5	179
Small Pox																
Measles									1			1				2
Scarlet Fever	1					1										2
Diphtheria			1			7	1	3		3	1	2		2	1	21
Whooping Cough				1	1	2		4			1	1		1		11
Typhoid Fever				1				1				2				4
Malarial Fevers											1					1
Diarrhœal Diseases				2	2	2		1	1	5		9				22
Cerebro-Spinal Meningitis	1															1
Other Zymotic Diseases		1	1			1				2		1				6
Total Zymotic Diseases	2	1	2	4	3	13	1	9	2	10	3	16		3	1	70
Marasmus		1		1	1	1		1		1		4	1			11
Phthisis	5		2	1	1	2	1	2	1	2	3	4	5	1	2	35
Bronchitis	1			1		2		3		1	1	4	5		2	20
Pneumonia				1		3		2	2	3	2	7	2		1	23
Suicide								1								1
Accidents	1			1			1	1					2			6

TABLE No. 9.—Continued.

Showing Monthly Mortality, Wards, Zymotic Diseases and Deaths at Different Ages

JULY.

WARDS.....	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
All causes, all ages.....	11	24	15	14	7	88	38		19	31	23	4	52	10	23	356
Rate of Mort'y, Census of '85	32	28	2	1	10	44	41	28	14	31	25	4	56	12	31	
All Causes, under 5 Years..	12	1	5		9	68	21	25	3	7	19	5	7	3	5	330
Small Pox			2													
Measles		1				3	2				3					9
Scarlet Fever						1					1					2
Diphtheria						5		1		5		3	2		2	18
Whooping Cough				2			1					1			1	4
Typhoid Fever											3	1				5
Malarial Fevers																1
Diarrhœal Diseases	2		2	3	5	23		15	5	7	4	13	22	1	5	112
Cerebro-spinal Meningitis			1													1
Other Zymotic Diseases		1				1					1		3			6
Total Zymotic Diseases	5	5	5	5	5	32	12	17	7	12	9	15	27	1	7	177
Marasmus.....	1	2		2		4	2			2	3	4	1		3	24
Phthisis..	3	2	3	2			5	2	1	3	3	3	5	1	2	35
Bronchitis						3	1	2		2	1	4	3			16
Pneumonia		1					3					8	3			23
Suicide					1	1			1							3
Accidents				1	1	2			1		3	3			1	12

TABLE No. 9.—Continued.

SHOWING MONTHLY MORTALITY BY WARDS, FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES.

AUGUST

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
All Causes, all Ages	12	22	9	14	14	60	21	36	10	39	24	56	74	6	16	413
Rate of Mort'y, Census of '85	14	28	14	21.	24	30	25	24	15.	33	29	38	33	12	21	
All Causes under 5 Years	4	9	3	9	4	38	12	17	2	15	13	33	47	1	2	219
Small Pox																
Measles	1						3				1		1			6
Scarlet Fever																
Diphtheria	1	2		1		8		1		2	2	2	8			25
Whooping Cough	1	1						1				2			1	6
Typhoid Fever		1			1	2		1	1			1	2	1		10
Malarial Fevers				1				1								2
Diarrhœal Diseases			3	2	2	6	2	2		4	5	10	18		5	59
Cerebro-Spinal Meningitis																
Other Zymotic Diseases	1					1			1				1			4
Total Zymotic Diseases	4	4	3	4	3	17	5	6	2	6	8	15	30	1	6	114
Marasmus		1		2	1	9	1	6		2	1	5	3			31
Phthisis	2	2	1		2	4	1	2		6	2	3	4			29
Bronchitis		2		1		2		2		1		1	3			12
Pneumonia	1					5	1	1	1	1	2	4	1			17
Suicide		1				1		1								3
Accidents		2		1						2	1	2	1	1	1	11

TABLE No. 9. Continued.

SHEWING MONTHLY MORTALITY BY WARDS FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES

SEPTEMBER.

WARDS.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTAL
All Causes, all Ages	1	6	5	9	17	43	21	31	7	24	1	39	25	5	13	212
Rate of Mortality, Census 1885	—	5	12	14	21	22	25	24	14	17	17	25	21	16	17	
All Causes under 5 Years	2	3	1	5	4	33	8	7	4	10	6	2	2	3	4	13
Small Pox																
Measles																
Scarlet Fever																
Diphtheria					1	4		2		3		1	3	1		14
Whooping Cough							1			1						2
Typhoid Fever						1		5	1			2			1	5
Malaria, Fevers		1		1						1		1				4
Diarrhœal Diseases		1	1	3	1	6	1	4		1	1	8	4	2	1	33
Cerebro Spinal Meningitis																
Other Zymotic Diseases						2		1		1		1	2			6
Total Zymotic Diseases		2	1	4	3	13	2	11	1	6	1	13	9	3	2	70
Marasmus	1	2			2		1	1	3	2	1	2	3	2	1	20
Phthisis					1	2	2	7	1	3		3	7		3	29
Bronchitis				1		4		2				2	2			11
Pneumonia			1			3	1			2	1	3	1			13
Suicide					1			1				1	1			4
Accidents		1						1				3	1		1	7

TABLE No. 9.—Continued.

SHOWING MONTHLY MORTALITY IN WARDS, FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES.

OCTOBER.

WARDS.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
All Causes, all Ages	10	21	17	11	13	48	15	36	17	24	12	39	53	11	21	345
Rate of Mort'y, Census of '85	12	28	26	15	22	23	16	24	20	19	14	26	24	22	28	
All Causes, under 5 Years	3	6	3	4	6	22	6	10	2	5	3	20	26	4	10	133
Small Pox																
Measles																
Scarlet Fever	1				2							1				3
Diphtheria		3				6	1			4	1	9	8	1	3	36
Whooping Cough		1														1
Typhoid Fever		1	1	2		3		3	1	2		2	4			19
Malarial Fevers										1		1	2			4
Diarrhœal Diseases		1	1			1		1					2	2		7
Cerebro-Spinal Meningitis																
Other Zymotic Diseases					1	2	1				1	1	2	1	3	12
Total Zymotic Diseases		6	2	2	3	12	2	4	1		2	14	18	4	6	70
Marasmus	2			1	2		1	1	1			1	2	1		12
Phthisis	1	2	2	1	1	3	3	4	3	3	1	1	6		1	32
Bronchitis					1	2	1	1	2	2		1	1		2	13
Pneumonia	1	2	2		1	1	1	3		1	2	3	2	1	1	23
Suicide				1					1				1			3
Accidents			†						1							1

TABLE No. 9.—Continued.

SHOWING MONTHLY MORTALITY BY WARDS, FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES.

NOVEMBER.

WARDS.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
All Causes, all Ages	9	17	4	15	11	49	16	53	9	28	17	48	41	1	16	334
Rate of Mort'y, Census of '85	11	23.	6	23	19	24.	17	35.	14	22.	20	30	18.	2	21.	
All Causes, under 5 Years	2	2	2	3	3	18	1	16	2	5	9	26	18		7	115
Small Pox																
Measles																
Scarlet Fever			1			2				2						5
Diphtheria		2			1	7	1	4		2	3		5		1	26
Whooping Cough										1						1
Typhoid Fever		1	1	1	1	2		3		1	1	2	3		2	18
Malarial Fevers					1	2							1			4
Diarrhœal Diseases		1						1					1			3
Cerebro-Spinal Meningitis	1															1
Other Zymotic Diseases		2		3	1			3					3			12
Total Zymotic Diseases	1	6	2	4	4	13	1	11		6	4	2	13		3	70
Marasmus				2		2		1							2	7
Phthisis		3		2	1	4	4	5	3	4		3	5		2	36
Bronchitis						2	1	2		1	1	1	3		2	13
Pneumonia	1	1			2	4	1	4			2	13	3	1		32
Suicide		1						1								2
Accidents				1						2	1	1				5

TABLE No. 9.—Continued.

SHOWING MONTHLY MORTALITY BY WARDS FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES

DECEMBER.

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
All Causes and Ages	16	20	14	7	21	38	24	34	7	32	48	54	74	6	14	412
Rate of Mortality, Census of 85	19.	35	21.	14	30	30	26	21	11	24	22	34	33	12	19	
All Causes under 5 Years	4	7	2	3	9	30	6	14		13	7	22	33	2	6	158
Small Pox																
Measles																
Scarlet Fever					2							2	2		1	5
Diphtheria		3			1	17		1		1		6	12		1	41
Whooping Cough						1										1
Typhoid Fever	2	6	1		5	3	4	3	1	3	6	6	3	2	1	46
Malarial Fevers		1				1						1	1			4
Diarrhœal Diseases	1									2		1				4
Cerebro-Spinal Meningitis											1					1
Other Zymotic Diseases				1		1					2	1	2			
Total Zymotic Diseases	3	17	1	1	8	23	5	4	1	6	9	16	19	2	3	112
Marasmus						3		3		2	1	2	2		2	15
Phthisis	1	2	2	2	1	2	2	2	1	4	4	6	6		1	33
Bronchitis				1	1	5		3		4	1	3	5			23
Pneumonia	1		1	2	2	2	2	2	1	4		9	3		1	30
Suicide																
Accidents	2					1				2		2	3			10

REPORT OF ATTORNEY.

REPORT

OF THE

Attorney of the Board of Health.

NEWARK, N. J., January 4th, 1890.

To the Honorable, the Board of Health of the City of Newark, N. J.

GENTLEMEN:—The report of your Attorney for the year 1889 is herewith submitted.

The number of complaints referred by the Health Officer to the Attorney during the year 1889, was four hundred and eighty-nine, not including milk complaints. This number may be slightly inaccurate, as a few complaints of the previous year may be included, but it represents the complaints in the hands of the Attorney during the year as nearly as he is able to state. This is an increase over the previous year of about one hundred, three hundred and ninety-three complaints having been received during the year 1888. In spite of this increase the actual litigation of the Board has decreased more than one half.

During 1888 the Board prosecuted one hundred and twenty-five cases; during 1889 the number was only fifty-five. This is due to several reasons, perhaps the most important one is that the people have concluded that it is cheaper to make the sanitary repairs required by the Board of Health, without waiting for the summons which follows the Attorney's letter. At any rate, remarkable promptness is generally shown in responding either in person or by letter to the notice from this office, and while the promises so promptly made are sometimes forgotten to the annoyance of the Health Department, and the law is occasionally invoked which might have been avoided, citizens generally have appreciated the propriety of heeding

the Board's directions. Another reason for the decrease in litigation, [illegible] considered invalid and even oppressive. Many of the Attorney's letters are taken directly to lawyer's offices and the result is now compliance, where it was formerly bitter resistance.

The following is a brief summary of the litigation during 1889:

Pending cases at beginning of year	5
Cases instituted during the year	50
	55

DISPOSITION OF CASES.

Costs paid and discontinued	17
Discontinued without costs	10
Discontinued, costs to be paid	7
Summons not served	6
Judgments in favor of Board	8
Judgments for defendents	2
Pending	5
	55

I held in my hands at date of last report		$25 94
I have collected during the year in fines and penalties, including milk analysis and witness fees of chemist		237 55
		$263 49
I have paid over to the Health Officer and hold his receipt therefor	$220 55	
I have expended from sums retained in my hands by authority of the Board for postage, witness fees and costs	41 88	$262 43
Leaving a balance in my hands of		$1 06

I know of nothing connected with my office which would particularly interest the Board. The Health Officer will undoubtedly refer in his report to the unavoidable delays attendant on the prosecution of offenders against the Sanitary Code. General rules must have exceptions, but I am not prepared to admit that it would be either just or politic to summon a citizen to answer for a violation of an ordinance in an ordinary case without first writing him of your intention so to do. If this plan is adhered to, delay must result. Of course in urgent cases, immediate action can be taken as it has been in the past; but it seems to me wise to pursue a general policy that will occasion as little friction as possible between the Board and the citizens, and yet secure compliance with the Board's requirements.

Respectfully,

JOHN R. HARDIN,

Attorney of the Board of Health

REPORT OF CHEMIST.

REPORT

OF THE

CHEMIST of the BOARD of HEALTH.

NEWARK, N J, January 1st, 1890.

To the Honorable the Board of Health of the City of Newark N J

GENTLEMEN:—I herewith submit my second annual report.

The chemical work for the year ending December 31st, 1889, has been very limited; there having been but eight samples of milk analyzed and one sample of water.

The milk analysis are tabulated as follows.

No. of Sample	Water	Total Solids	Fat.	Solids not fat	Specific Gravity	Remarks
8[illegible]	8[illegible]	10 28	2 74	7 54	1 02[illegible]3	Watered Milk
84	90 13	9 87	2 43	7 44	1 02544	" "
8[illegible]	8[illegible]	1 99	1 14	[illegible]	1 [illegible]59	Skimmed
77	90 06	9 94	2 34	7.60	1 02505	Watered "
68	91 68	8 32	1 95	6 37	1 0209	" "
76	90.24	9.76	2 07	7 69	1.02552	" "
75	92 13	7 87	2 15	5 72	1.01876	" "
53	89 66	10 34	2 91	7 43	1 02407	" "

All of the above analysis proved the milk to have been below the legal standard of twelve per cent. of milk solids. All the samples with one exception having been adulterated with from fifteen to forty per cent. of extra water; the exception being a sample of skim milk.

The average percentage of solids found in the eight samples analyzed was 9.67, against an average of 10.15 in the eighteen samples found below the standard in 1888.

The point is frequently made by milk dealers that the present standard of 12% of solids in milk is too high. This is just the reverse of what is true, for, as shown by experiments recorded in last [illegible] over 13%. In other states the milk laws are much more stringent [illegible] adulteration of milk to those persons who practice adulteration by "skimming," I would suggest to your Honorable Body that an effort be made to have the law require a certain percentage of fat (at least three per cent.) in addition to the twelve per cent. of solids, and also to avoid dispute about methods of analysis, that all milk analyzed for the purposes of the act, be examined by the most reliable method now known.

Method to be described detail

One sample of well water was analyzed during the year, and the result proved the well to be very badly polluted, indeed the water was no better than a sewage effluent.

There are no doubt many such wells in Newark, and sanitary [illegible] the owners of the wells, to such a course, has been the substitution of Passaic water, against which there is a popular prejudice. However, since we are shortly to have a supply of pure water, the [illegible] should be abandoned.

Owing to the very important facts set forth by one of the members of your Board during the year, in relation to the action of [illegible] containing such drinks.

[illegible]

arrested for the present time being, but they are not all dead, and their spores remain almost unchanged and capable of development as soon as placed under favorable circumstances.

Very respectfully

HERBERT B. BALDWIN,

Chemist of the Board of Health

FOURTH

Annual Report

—OF THE—

BOARD OF HEALTH

—OF THE—

CITY OF NEWARK, N. J.,

FOR THE YEAR ENDING

DECEMBER 31st, 1888.

NEWARK, N. J.:
FRANCIS BEIL, STATIONER AND PRINTER,
761 to 767 Broad Street.

1890.

FOURTH

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OF THE

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OF THE

CITY OF NEWARK, N. J.,

FOR THE YEAR ENDING

DECEMBER 31st, 1888.

NEWARK, N. J.
FRANCIS BELL STATIONER AND PRINTER,
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1890.

BOARD OF HEALTH

—OF THE

CITY OF NEWARK, N. J.

OFFICE OF THE BOARD,
CITY HALL, THIRD FLOOR, ROOMS 5 AND 6

MEMBERS.

HIS HONOR, MAYOR JOSEPH E HAYNES, PRESIDENT
DR FREDERICK B MANDEVILLE, HEALTH PHYSICIAN

ALDERMAN ALEXANDER H JOHNSON,
MR HENRY R BAKER,
MR TYLER PARMLY,
DR CHARLES M ZEH,
DR. HERMAN C H HEROLD,
HON WILLIAM A RIGHTER,
MR SAMUEL S SARGEANT

COMMITTEES OF THE BOARD FOR 1888.

On Finance. Alderman Johnson, Mr Parmly, Dr Herold
On Sanitation Dr Mandeville, Dr. Zeh, Mr. Sargeant
On Laws and Ordinances Dr. Zeh, Dr. Mandeville, Mr Baker.
On Conference and Appointments.—Mr. Sargeant, Mr Baker, Mr. Parmly
On Rules Mr Righter, Mr Baker, Alderman Johnson

OFFICERS OF THE BOARD

DR DAVID L. WALLACE, *Secretary and Health Officer*
DAVID D CHANDLER, *Clerk to Health Officer*
JOHN R HARDIN, *Attorney*
C PHILLIPS BASSETT, C E., E M, *Consulting Engineer*
HERBERT B BALDWIN, *Chemist*

SANITARY INSPECTORS.

First and Eighth Wards.—Thomas E. Freeman.
Second and Fourth Wards.—Bernard Nulty.
Third, Ninth and Fourteenth Wards.—Charles H Edwards.
Fifth and Tenth Wards—Lewis H Bridgem.
Sixth and Seventh Wards.—William H Lyle
Eleventh and Fifteenth Wards.—David Duffy.
Twelfth Ward. George W Schmitt
Thirteenth Ward Victor L. Hesse.

MEAT INSPECTORS

WERNER RUNGE, D. V. S PHILIP MILLER

MILK INSPECTOR

HENRY NEGLES.

OUT DOOR POOR DEPARTMENT

CITY DISPENSARY, CENTRE MARKET BUILDING, ROOM 12

CITY APOTHECARY.

J. FRANK CRAMER.

DISTRICT PHYSICIANS AND ATTENDING PHYSICIANS TO DISPENSARY

First District, 1st and Eighth Wards—Dr. Ed. DeL. Bradin.
Second District, 2d, 3d and 4th Wards—Dr. Arthur C. Dougherty.
Third District, 9th and 10th Wards.—Dr. F. L Meyer
Fourth District, 5th and 12th Wards.—Dr. Philip Roth, Jr.
Fifth District, 13th and 14th Wards.—Dr. Henry A. Kornemann
Sixth District, 7th and 15th Wards (east of Newark St.)—Dr. Stephen W Van Duyne.
Seventh District, 6th Ward. Dr. Vincent Nager
Eleventh District, 11th Ward and 7th and 15th Wards (west of Newark St.)—Dr Edward Everitt.

Regular meeting of the Board of Health, Mayor's office, City Hall, the first Monday of each month, at 8 o'clock P M

REPORT.

ANNUAL REPORT

—OF THE—

HEALTH OFFICER.

NEWARK, N. J., January 1st, 1889

To the Honorable the Board of Health of the City of Newark N J

GENTLEMEN:—I have the honor herewith, to transmit this, the fourth annual report of the Department of Public Health, for the year ending December 31st, 1888

Before appending the reports, a brief synopsis of what has been accomplished during the past year together with a few suggestions in regard to matters that should receive attention in the near future may be of interest

One of the most important steps taken was the passing of a Sanitary Code and the printing of five thousand copies of the same for distribution A copy of this Code has been placed in the hands of every Architect, Builder, Physician and Undertaker in the city, and the result has been that our laws are now being observed more closely, it being impossible to offer the excuse of ignorance in case of violation of any of them

Attention having been called to carelessness in some cases and ignorance in others, in the laying of drains connecting premises with sewers or cesspools, an order was issued that before any connection of house drainage and plumbing with sewers or cesspools should be covered, the same should be inspected by an inspector of this Board and by him approved The result has been that irresponsible men have been driven out of the business, and the character of the work now done is perfect

Up to the present year there has been more or less trouble incident upon the removal of the contents of privy vaults in cesspools. Certain parties engaged in this business had been a law unto themselves, ignoring to a very great extent the provisions of the Code regulating this street work, and carrying the work to be done by the ordinary process. Your Health Officer determined it should be done as required by the Code, and the result was the institution of suits against those offending. Work at first were by the wholesale. No quarter was given, the penalties being collected in all cases. This was not relished by very many of these parties, found that the Board was determined in the matter, gave up the fight, and are now carrying on their business in a legitimate manner.

Another matter that received attention was the storing of rags, bones etc. in houses occupied by tenants in different parts of the city. At the present time, so far as the houses are concerned, this practice has been broken up; in the majority of instances the business has been stopped altogether, but the disposition now is to apply to the board direct for permission to keep the rags etc. in sheds in the premises. The Health Officer having power to issue such permits. These petitions were dealt with in all cases except one, to which was shown that the yard was large enough to have such buildings erected at sufficient distance from the dwellings, which is certainly impossible in the built-up portions of the city.

Previous to this year the keepers of Poultry in the Centre Market were not allowed to keep stock in the sheds occupied by them, which was found very objectionable to people passing through the market, but exception was shown to the tenants of the eight rear booths. About April 1st notices were served on all dealers that after May 1st arrangements must be made to remove the stock in trade. Poultry in such a manner as shall be satisfactory to the Board of Health. The Health Officer was waited upon by a committee from these dealers, and it was represented to him that should the order be carried out their business would be ruined, but took a different view of the situation, and decided that the order should stand. On May 1st they were all removed, even from the market and in small coops in the yards, but at the time, and continued business in the new way, without apparently having lost any great amount of money.

During the first part of the year there was a disposition shown on the part of some Undertakers to continue the practice of holding public funerals in cases of death from contagious diseases. The Board started suit in one case and was defeated the judge ruling that inasmuch as it was shown that only relatives attended the funeral, it was a private one. The effect of the trial, however, was beneficial in two ways, it satisfied the Board that the section of the Code governing this subject should be drawn in a more rigid manner, which was done at once, it now reading "that the funeral shall be strictly private, (that is, the members of the immediate household only shall be present;") it also demonstrated to such others as had violated the section referred to, that the Board was determined in the matter, and since time no public funeral in such cases has been held.

I would now make the following suggestions

1. That inasmuch as the last Legislature conferred on Boards of Health of the Cities of this State the power to pass ordinances to compel, prescribe, regulate and control the plumbing, ventilation and drainage of all buildings, public and private, that this Board take advantage of the said act at once, and pass an ordinance governing these subjects. If put on a first reading at the February meeting, even without calling a special meeting, it could become a law by May 1st.

2. Another subject demanding immediate consideration by the Board, is the disposition of garbage in this city. At the present time the ashes and garbage are not required to be separated and in a mixed condition are collected by the city scavenger, under a contract with the Common Council, at a great loss to himself. Under these circumstances in order to make his loss as small as possible, he has taken contracts with parties to fill in lots in different sections of the city. All sanitary authorities are satisfied that this is exceedingly detrimental to the health of the inhabitants living adjacent to these dumping grounds in as much as allowing buildings or factories to be built over such material it would be next to criminal. This subject should be met and dealt with at once. The ashes and garbage should be separated. The ashes could then be utilized, either by the city or the contractor, for filling in of lots below grade, and the garbage should be destroyed

There are several methods now in use having this object in view, each one having its advocates. While the majority destroy it by incineration, there is one method now adopted by the cities of [illegible] where the garbage is turned to some practical use, but as is not used. By this method it is first subjected to the pressure of [illegible] which the vapor is driven through coolers and condensers and passes away as comparatively odorless sewage. The [illegible] garbage is then subjected to a further process, by which all the grease is extracted, the residue material [illegible] fertilizer. Both the grease and the fertilizer command a ready sale.

3. While the removal of the contents of privy vaults and cesspools is accomplished as required by the Code, we are laboring under the difficulty of having no proper means at hand for its ultimate disposal. At the present time it is carted to farms on the outskirts of the town which is causing more or less complaint at times, but particularly in the summer months. I would suggest that this matter be taken into consideration at an early day, and some method be adopted of disposing of it without being a nuisance to any of our inhabitants.

While on this subject, I would call the attention of the Board to the large number of privy vaults on the line of streets in which sewers are laid.

Section 33 of the Code provides "that no privy vault shall hereafter be constructed *nearer* than [illegible] to any house, building or premises having a sewer connection, or abutting on a street in which is, or hereafter may be laid a sewer without a permit from the Board of Health. So far as the construction of new vaults is concerned, the section is [illegible] but there are numerous cesspools and privy vaults that should be removed, and the Board should order that the section be carried out in its entirety.

4. As yet no hospital has been provided for patients suffering from contagious diseases who cannot be properly isolated at their homes. In this connection His Honor the Mayor, offered a resolution recommending the establishing of such a hospital on the lands owned by the New York City Hospital. I earnestly hope his advise will be given the consideration it merits.

5 Section 83 of the Code, regulating the burial of bodies in cemeteries in this city, needs careful attention from the Board There are at present two cemeteries where the care in burials is not given the consideration it should receive. One is so full to the present time that no more interments should be allowed in it. The other is situated on such swampy ground that it is impossible to dig to any great depth without striking water Often times after heavy rains, the water running off from this cemetery and passing through the gutters to the sewers, is said to be decidedly offensive If interments are to be allowed in this place the trustees should be compelled to establish a system of drainage to remedy the now existing evils. I trust that such an edict will go forth at an early date.

VITAL STATISTICS.

While the reports of births and marriages are still incomplete, each succeeding year since 1885, has shown an improvement. Previous to that time no record of these events was kept in the Health Office There is still room for more improvement, especially in regard to the return of marriages, and an effort is now being made to get the Clergymen of the city interested in the matter

BIRTHS.

During the past year, 5,115 births were reported. The totals for 1886 and 1887 were 4,574 and 4,846 respectively Of the 5,115 reported, 5,038 were white and 77 colored; 2,548 were males and 2,554 were females—the sex of 13 not being stated; 5,073 were legitimate and 42 illegitimate. The birth rate per thousand of the population was 28.86

MARRIAGES

There were 1,668 marriages reported during the past year, 1,375 having been reported for 1886 and 1,632 for 1887.

Of the 1,668 reported, 1,625 were white and 43 colored. The marriage rate per thousand of the population was 9.37.

DEATHS.

During the past year there were 4,088 deaths, representing a death rate based upon the population estimated at 178,033 of 22 96. This is a decrease from 1887, it being 23 86 for that year. Of these, 2,063 were white males and 1,885 white females. The deaths among the colored population were 66 males and 74 females.

Population white (estimated,) 174,267, death rate 22 69.
Population colored (estimated) 3 766; death rate 34 75.

The deaths, with the death rate by quarters was as follows:

First Quarter,	. . .	1,050, Death Rate	23 59
Second "	.	993, "	22 31
Third "	(Summer months)	1,099, "	24 69
Fourth "	. . . .	946, "	21 25

The total number of deaths under five years of age, was 1,723, and of these, 1,074 were under one year. The deaths under one year per thousand of registered births is thus shown to be 200. Of the 1,074 deaths under one year, 197 were less than two weeks old, 105 were less than three days and 46 were under one day.

The deaths referred to the Zymotic diseases, which had been 693 for 1886 and 752 for 1887, increased last year to 808, and with the exception of 17 which occurred in public institutions, were di divided among the different wards as follows.

1st Ward,	2	Death Rate	2 33	8th Ward,	8	Death Rate	4 7		
2d	"	28,	"	"	3.50	9th	"	19,	"	"	2 37
3d	"	24,	"	"	3.00.	10th	"	81,	"	"	5 78
4th	"	67,	"	"	9 57	11th	"	28,	"	"	2 80
5th	"	26,	"	"	3 71	12th	"	98,	"	"	5.44
6th	"	96,	"	"	4.19	13th	"	135,	"	"	5.40
7th	"	32,	"	"	3.20.	14th	"	15,	"	"	2.50

15th Ward 41, Death Rate 4.55.

Of this class

Measles caused	2	deaths,	a decrease from	1887	of	18
Fever Scarlet "	25	"	an increase over	"	"	8
Diphtheria & Croup caused	314	deaths,	an increase over	"	"	61
Whooping Cough	" 6	"	a decrease from	"	"	7
Fever Typhoid	" 86	"	an increase over	"	"	32
Fever Malarial	" 37	"	a decrease from	"	"	11
Diarrhœal Diseases	" 271	"	an increase over		"	6

Of the constitutional diseases, Phthisis Pulmonalis caused 438 deaths a decrease of 28 from the previous year

Of the principal respiratory diseases, 198 deaths were from Bronchitis and 294 from Pneumonia.

There were 122 deaths from accidents, there was 1 homicide and 23 suicides.

OUT-DOOR POOR.

The following is the yearly statements of Mr. J. Frank Cramer, City Apothecary.

Number of patients treated at clinics.....	3,744	
Number of dispensary prescriptions filled		3,961
Number of district prescriptions filled.....		4,568
Total written and dispensed.....		8,529
Teeth extracted.....		2,310
Vaccinations.....		675

The total amount spent for drugs, was $859.94, giving an average cost per prescription of ten cents.

The following table shows by districts the number of patients treated, visits made, prescriptions written, number of patients sent to hospitals and deaths for the year 1888.

District	Location.	Patients	Visits Made	Prescriptions Written	Sent to Ho	Deaths
First	1st and 8th Wards ..	311	782	453	40	16
Second	2d, 3d and 4th Wards.	368	581	692	61	13
Third	9th and 10th Wards	470	1,250	757	54	20
Fourth	5th and 12th Wards.	785	1,239	825	41	21
Fifth	13th and 14th Wards.	624	994	341	37	9
Sixth ...	7th and 15th Wards, east of Newark St	512	1,246	524	21	2+
Seventh.	6th Ward..... ...	397	795	364	31	21
Eighth ..	11th, 7th & 15th Wds, west of Newark St..	451	733	612	28	19
	Grand Total	3,918	7,620	4,568	313	143

MEAT AND LIVE STOCK DEPARTMENT

The following gives the inspections in this Department, together with the condemnations for the year 1888

Months.	Beef Cattle	Hogs.	Calves.	Sheep.	Totals.
January.....	2,207	2,900	3,665	4,706	13,478
February ...	1,904	3,272	7,784	3,680	16,640
March	3,073	4,135	5,631	6,419	19,258
April	2,564	4,147	6 139	5,609	18.459
May	3,413	4,724	4,180	3,876	16,193
June	3 115	3,341	5,329	4,982	16,767
July	2 342	3,555	4,174	55,33	15,604
August	2,120	2,326	5,805	7.514	17,765
September. ..	3,026	4,082	6,342	9.737	23 187
October.	2,520	3,893	5,58,	8.829	23,829
November. ..	2,391	4,351	3,372	5,837	15,951
December	2 543	4 35	2 594	41 33	13 [illegible]
Totals.....	31,218	44,761	63,902	70,855	210 736

The following are the condemnations:

	NUMBER
Cattle—Beef	3
Calves	39
Sheep	14
Hogs	1

QUARANTINED

	NUMBER
Cattle	13

ARTICLES CONDEMNED IN MARKETS

	POUNDS
Beef	985
Veal	459
Poultry	450
Fish	360
Pork	292
Mutton	91
	NUMBER
Rabbits	12
	BARRELS
Beans	41
Cabbage	30
Potatoes	16
Bananas	5
	BASKETS
Peaches	38
Grapes	24
	BOXES
Peas	20
	BUSHELS
Chestnuts	6
	QUARTS
Blackberries	800
Strawberries	60

CONTAGIOUS AND INFECTIOUS DISEASES REPORTED.

During the past year there has been a very large increase in the number of contagious and infectous diseases reported, the comparison with the year 1887 being as follows:

Reported in 1888.	Compared with 1887
Diphtheria 949 cases,	Increase 330
Fever Scarlet, 466 "	" 175
Fever Typhoid, 435 cases	" 310
Croup Membranous 71 "	Decrease 13

As this subject has already been alluded to in the first portion of the report, further comment is unnecessary.

The following gives a summary of the work done in the Sanitary Department and that of the Milk Inspector

Notices served for the abatement of nuisances....	2,178
Abatements....	1,802
Notices served to rectify defective plumbing and drainage. . .	1,133
Rectifications. .. .	968
Permits granted for sewer connections.	1,376
Number of sewer drains inspected.....	1,192
Permits granted for cleaning privy vaults. . .	2,362
Permits granted for cleaning cesspools.....	634
Permits granted for keeping cows and goats.....	636
Number of samples of milk tested ..	2,422
Number of samples sent to analyst	19

Respectfully submitted,

DAVID L. WALLACE, M. D.,

Health Officer

TABLES.

TABLE No. 1.

SHOWING NUMBER OF BIRTHS REPORTED FOR EACH MONTH, WITH COLOR, SEX, NATIVITY OF PARENTS, TOGETHER WITH TOTAL FOR THE YEAR AND THE BIRTH RATE

Month	Color			Sex			Nativity of Parents.										Name of Child			
	Total	White.	Colored	Male	Female	Not Stated.	Native	Foreign	Foreign Father	Foreign Mother	Nativity of Father stated only.		Nativity of Mother stated only.		Nativity not stated		Stated	Not Stated	Legitimate	Illegitimate
											Nat	For	Nat	For						
Jan	448	444	4	224	222	2	165	193	58	20	1					2	230	218	446	2
Feb	451	444	7	214	237		169	177	49	25	1						267	184	450	1
Mar	396	391	8	191	206	2	152	185	36	22			2	2			211	188	394	5
April	383	376	7	177	208		142	161	52	24			2	2			215	168	378	5
May	318	316	2	160	156	2	102	154	33	24	1		1				191	127	315	3
June	372	367	5	175	193	4	142	169	37	16	1	1	3	2	1		210	162	370	2
July	362	357	5	189	173		141	151	45	15	1	1	1	2	5		168	194	359	3
Aug	369	364	5	183	185	1	137	173	48	11							237	132	369	
Sept	488	480	8	244	244		199	201	46	31			5	5	1		248	240	480	8
Oct	420	413	7	210	210		173	178	46	18		2	3		1		223	197	414	6
Nov	693	680	13	353	338	2	324	246	77	41			1	1	1		316	377	688	5
Dec	412	406	6	228	184		171	172	48	19			2				227	185	410	2
Total	5,115	5,038	77	2,548	2,554	13	2,047	2,165	575	275	5	4	20	14	10		2,743	2,372	5,073	42

Birth rate per thousand of the population, 26 87

TABLE No. 2.

SHOWING THE NUMBER OF MARRIAGES REPORTED MONTHLY DURING THE YEAR WITH THE TOTAL FOR THE YEAR AND THE MARRIAGE RATE.

Month.	Total	White		Native		Foreign		Nativity not stated		1st Marriage		2d Marriage		3d Marriage		4th Marriage		Marriage not Stated	
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
January	125	121	121	4	4	71	82	54	43			96	92	12	12	2				15	21
[illegible]	120	122	122	+	+	5[illegible]	+	[illegible]	[illegible]	1	[illegible]	[illegible]	[illegible]	1[illegible]	12					11	1
[illegible]	107	106	106	1	1	62	77	44	28	1	2	80	81	20	16	1	1			6	9
[illegible]	139	137	137	2	2	67	75	66	56	6	8	102	98	21	19		1			16	21
May	112	108	108	4	4	69	82	34	21	9	9	88	94	16	8		1			8	9
[illegible]	152	146	146	6	6	96	107	56	44		1	119	127	1[illegible]	12	1				13	13
[illegible]	105	102	102	3	3	61	64	44	39		2	82	75	1[illegible]	13	1	1			10	1[illegible]
[illegible]	171	169	169	2	2	68	78	103	90		3	130	129	[illegible]	24	2				14	1[illegible]
[illegible]	138	135	135	3	3	83	88	53	46	2	4	112	107	1[illegible]	20					11	11
[illegible]	166	159	159	7	7	102	110	64	52		4	143	143	1[illegible]	11		1			[illegible]	11
[illegible]	204	1[illegible]	1[illegible]	[illegible]	[illegible]	12[illegible]	1[illegible]	[illegible]	[illegible]		+	171	17[illegible]	1[illegible]	17	2	1			12	1[illegible]
December	123	121	121	2	2	68	74	55	46		3	100	100	14	10					[illegible]	[illegible]
[illegible]	1[illegible]	1[illegible]	1[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]	1[illegible]	1[illegible]	20[illegible]	1[illegible]	[illegible]	[illegible]			132	1[illegible]

[illegible]

TABLE No. 3.

SHEWING CAUSES OF DEATH WITH AGES OF DECEDENTS TOGETHER WITH THE SEX AND NATIVITY, ALSO THE DEATH RATE PER THOUSAND OF THE POPULATION FROM EACH DISEASE

CAUSES OF DEATH	Age by Years.									Sex.		Nativity				
	1 Year and under	1 to 2 Years	2 to 5 Years	Total under 5 Years.	5 to 15 Years.	15 to 20 Years.	20 to 40 Years.	40 to 60 Years	60 Years and over.	Male	Female	United States	Foreign	Total, both Sexes	Annual Death Rate per 1,000.	Colored
Zymotic																
Small Pox																
Measles			1	1	1					1	1	2		2	0 01	
Scarlet Fever	3	2	10	15	8	1	1			14	11	24	1	25	0 14	1
Diphtheria	3	39	128	170	93	12				123	128	249	2	251	1 41	3
Croup	9	14	29	52	10	1				31	32	62	1	63	0 35	2
Whooping Cough	1	1	3	5	1					4	2	6		6	0 03	
Typhoid Fever					3	21	44			30	17	34	32	36		3
Malarial Fevers	1	1	5		1	8	1			2	17	31	6	37	2	
Diarrhœa Diseases	18	56			1		4			129	145	256	18	274	1	1
Other Zymotic Diseases	40	6	1	47	1	3				35	32	56				

Constitutional.																		
Cancer					..	.	9	38	37	[illegible]	2	5[illegible]	[illegible]4	[illegible]2	[illegible]	[illegible]	4[illegible]	4
Phthisis Pulmonalis					1	4	26	1	22[illegible]	1	253	18[illegible]	2[illegible]	1[illegible]2	[illegible]3[illegible]	2	[illegible]	2
Marasmus and Scrofula	15[illegible]	22	[illegible]	18[illegible]	2						[illegible]	[illegible]	18[illegible]		18	1	[illegible]	9
Other Constitutional Diseases	1[illegible]	[illegible]	1	45	[illegible]	18	35	2[illegible]	1		52	[illegible]	[illegible]	14	14[illegible]	[illegible]	[illegible]	[illegible]
Local.																		
Nervous																		
Apoplexy		2[illegible]	*	3[illegible]	*	*	[illegible]	3[illegible]	[illegible]3		[illegible]1	[illegible]	39	9	118		[illegible]6	1
Paralysis	.	3	1	4	1	2	[illegible]	9	23	6	2[illegible]	2[illegible]	2[illegible]	2	51		2[illegible]	2
Meningitis	[illegible]	24	[illegible]	1[illegible]6	14	[illegible]	18	12	5		[illegible]4		135	2[illegible]	1[illegible]		[illegible]2	[illegible]
Convulsions	15[illegible]	28	16	1[illegible]	2		4				10[illegible]	9[illegible]	1[illegible]9	6	2[illegible]5	[illegible]	1[illegible]	[illegible]
Other Nervous Diseases	4[illegible]	1[illegible]	[illegible]	6[illegible]	[illegible]	[illegible]	25	2[illegible]	3[illegible]	[illegible]	93	4	115	52	6[illegible]		[illegible]3	4
Circulatory—																		
Diseases of the Heart			1	1	[illegible]	1[illegible]	4	7[illegible]	6	12	9[illegible]	113	111	1	1	212		9 [illegible]
Other Circulatory Diseases				..	1	3	8	11	[illegible]	3	2	13	22	1	33		18	1
Respiratory—																		
Bronchitis	52	26	17	95	4	4	12	26	39	18	84	114	131	6[illegible]	19[illegible]	1	1[illegible]	1
Pneumonia	43	21	32	96	8	18	62	[illegible]	4[illegible]	[illegible]	162	132	[illegible]4	12	294	1	65	17
Other Respiratory Diseases	13	3	11	2[illegible]	[illegible]	3	13	16	15	5	43	4	49	34	83	[illegible]	46	6
Digestive—																		
Diseases of Stomach and Bowels	112	14	1[illegible]	136	6	6	19	23	18	5	101	112	1[illegible]9	44	213	1	19	6
Peritonitis	4	..	3	7	1	3	12	6	2	..	15	16	17	14	31	[illegible]	1[illegible]	2
Diseases of the Liver		2	..	2	2	2	6	25	12		31	18	16	33	49		2[illegible]	
Other Digestive Diseases	4	..	1	5	....	..	2	...		..	4	3	[illegible]	[illegible]	[illegible]	0	4	

*Following Diphtheria

TABLE No. 3.—Continued.

SHOWING CAUSES OF DEATH WITH AGES OF DECEDENTS, TOGETHER WITH THE SEX AND NATIVITY ALSO THE DEATH RATE PER THOUSAND OF THE POPULATION FROM EACH DISEASE

CAUSES OF DEATH	Age by Years										Sex		Nativity			Annual Death Rate, per 1,000	
	1 Year and under	1 to 2 Years	2 to 5 Years	Total under 5 Years	5 to 10 Years	10 to 20 Years	20 to 40 Years	40 to 60 Years	60 to 80 Years	80 Years and over	Male	Female	United States	Foreign	Total, both Sexes	Total, both Sexes	Colored
LOCAL.—*Continued.*																	
Urinary Organs —			2*														
Bright's Disease and Nephritis	1		11	12	5	7	38	44	43	4	71	74	91	52	153	0 87	6
Other Diseases of Urinary Organs						2	2	6	14	1	18	—	11	14	25	0 14	
Other Local Diseases							3	5	1		4	5	3	6	9	0 05	
DEVELOPMENTAL.																	
Children —																	
Asthenia and Premature Birth	109			109							64	45	109		109	0 61	2
Congenital Deformity	15	1		16							8	8	16		16	0 09	1
Other Diseases of Children	47			49							26	23	46	3	49	0 27	3

DEVELOPMENTAL.—*Con.*																		
Women—																		
Puerperal Diseases.							25	1	...			26	15	11	26		14	1
Old Age					.	.	.	1	37	31	27	42	36	33	69		38	
ACCIDENT AND VIOLENCE.																		
Accidents ...	1	1	10	12	9	14	41	3	13	3	57	28	66	56	122	[illegible]	18	2
Homicide		.	.	.	.	.		1			1	.	1	..	1		1	
Suicide					.	.	9	12	2		20	3	8	18	23		13	1

RECAPITULATION

Population, January 1st, 1889 .... (estimated) [illegible]

Total Deaths from Zymotic Diseases............	[illegible]		Death Rate................	4.54
" " " Constitutional Diseases	853		" "	4.79
" " " Local Diseases	2,012.		" "	11.30
" " " Developmental Diseases	269.		" "	1.51
" " " Accident and Violence.	146.		" "	0.82
Total Deaths.....	4,[illegible]		Total Death Rate	22.9

Total Still Births [illegible]

TABLE No. 4.

SHOWING MORTALITY BY MONTHS, WITH AGES OF DECEDENTS, TOGETHER WITH SEX, NATIVITY AND SOCIAL STATE.

Ages	January.	February.	March.	April.	May	June.	July.	August.	September.	October.	November.	December.	Grand Total.
Under 1 Year	9	7	15	69	[illegible]	62	141	116	86	88	62	49	1 [illegible]4
Between 1 and 2 Years	24	20	22	23	15	26	34	18	28	20	13	20	243
" 2 " 5 "	45	30	30	37	2	25	23	16	22	33	23	25	35
Total under 5 Years	144	129	147	128	122	143	197	237	136	141	102	97	1 723
Between 5 and 10	15	13	10	19	15	16	9	4	13	25	12	10	172
" 10 " 20	20	17	15	16	18	21	6	10	16	2	15	21	198
" 20 " 30	27	36	41	35	27	25	21	34	34	31	28	26	376
" 30 " 40	31	26	25	27	32	37	33	30	25	26	2	25	352
" 40 " 50	31	23	34	24	25	18	24	27	30	33	23	25	317
" 50 " 60	22	35	25	22	29	29	19	28	17	25	23	22	296
" 60 " 70	37	24	32	3	26	28	25	23	24	23	16	32	320
" 70 " 80	16	15	25	15	13	22	10	17	12	22	24	15	211
" 80 " 90	4	6	1	10	6	9	6	5	5	6	11	11	97
" 90 " 100	2	1	4	2	1	1	1	2	1	...	3	2	20
Total	354	328	368	328	3[illegible]3	352	381	425	323	367	287	272	4 085

TABLE No. 4—Continued.

	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Grand Total
SEX													
White—Male	188	162	187	162	180	173	181	222	173	165	143	180	2 063
" Female	153	151	163	155	143	169	151	193	142	155	137	133	1 855
Colored—Male	7	7	7	3	5	5	3	5	5	7	3	3	56
" Female	6	5	7	5	7	5	6	4	3	5	4	6	74
Total	354	325	365	325	313	352	351	425	323	332	287	292	4 048
NATIVITY.													
United States	241	227	264	236	222	251	237	322	221	235	197	205	2 938
Foreign	113	111	114	92	91	111	114	103	102	97	90	87	1 110
Total	354	325	365	325	313	352	351	425	323	332	287	292	4 048
SOCIAL STATE													
Single	218	171	209	171	177	211	237	278	215	223	173	161	2 444
Married	90	87	114	83	95	87	81	89	85	99	77	91	1 078
Widow	3	25	28	3	24	36	11	13	22	31	26	2	311
Widower	14	11	22	13	11	4	21	19	5	4	11	12	151
Not stated	2	1	5	1	6	4	2		3	1	2	1	36
Total	354	325	365	325	313	352	351	425	323	332	287	292	4 048

TABLE No. 5.

SHOWING MONTHLY MORTALITY BY WARDS IN THE CITY OF NEWARK, WITH POPULATION AND DEATH RATE OF EACH

WARDS.	Jan.	Feb.	March.	April	May	June.	July	Aug	Sept	Oct	Nov.	Dec.	Total	Population	Death Rate
First	15	18	17	12	13	17	15	15	13	13	8	21	1[illegible]	[illegible]	[illegible]
Second	14	15	12	13	7	16	12	18	6	17	9	8	14[illegible]	[illegible]	[illegible]
Third	14	9	16	11	10	10	13	10	6	11	10	9	129	[illegible]545	19 12
Fourth	19	18	24	19	16	23	10	22	14	13	13	14	205	1,[illegible]0	29 28
Fifth	15	10	14	9	9	11	12	17	13	12	13	10	14[illegible]	[illegible]50[illegible]	21 60
Sixth	44	45	41	40	44	33	37	54	40	27	23	29	45[illegible]	23,2[illegible]	19 8
Seventh	20	18	14	19	13	17	18	20	21	20	12	18	21[illegible]	[illegible],[illegible]3[illegible]	21 60
Eighth	39	27	37	20	29	28	36	42	32	37	30	32	3[illegible]9	17,25[illegible]	22 88
Ninth	9	10	13	11	11	14	8	13	8	12	7	10	126	[illegible]50[illegible]	[illegible]
Tenth	31	28	33	26	35	21	27	35	24	32	24	23	339	13,2[illegible]	24 24
Eleventh	16	14	19	10	17	11	13	13	8	13	9	13	156	[illegible],3[illegible]	15 6
Twelfth	38	29	40	33	30	39	52	50	40	41	35	35	4[illegible]2	[illegible]6[illegible]1	28 66
Thirteenth	37	44	45	55	40	67	50	69	57	59	51	38	611	25,33[illegible]	24 56
Fourteenth	5	6	5	9	6	6	5	4	4	8	5	4	[illegible]0	[illegible]8[illegible]8	[illegible]
Fifteenth	13	14	15	19	11	16	21	18	11	19	19	10	186	[illegible]4	20 66
Total by Wards	33[illegible]	3[illegible]5	3[illegible]2	306	2[illegible]1	329	32[illegible]	[illegible]	267	334	268	274	3[illegible]14	1[illegible]0,33	21 42
Public Institutions	18	23	23	22	22	23	22	25	26	33	19	[illegible]	254		1 54
Grand Total	354	328	3[illegible]8	328	313	352	351	42[illegible]	323	36[illegible]	28[illegible]	2[illegible]2	[illegible]	1[illegible]0,33	22 96

Monthly Mortality by Wards.

TABLE No. 6.

SHOWING MONTHLY MORTALITY IN WARDS FROM ZYMOTIC DISEASES AND OTHER PRINCIPAL CAUSES

JANUARY

WARDS.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total.
All Causes, all Ages	15	14	14	17	17	14	22	39	9	8	21	38	32	8	3	336
Rate of Mort'y, Census of 85	20	21.	24.	33.	34	24	24	29	15.	29	21	7	19	19	19	
All Causes, under 5 Years	6	6	4	10	7	22	11	21	1	6	4	14	23	7	3	143
Small Pox																
Measles																
Scarlet Fever							1				1					2
Diphtheria	1	4	2	5	1	5	3	7	2	2		3	5			40
Whooping Cough																1
Typhoid Fever					1		1		1	1	1			1		5
Malaria, Fevers			1	1	1			1		1					1	5
Diarrhœal Diseases						1		1	1		1					3
Cerebro-Spinal Meningitis						1	1				1			1	1	3
Other Zymotic Diseases	1			5		1	1		1	1	1	3	2		2	17
Total Zymotic Diseases	2	4	3	11	3	1	4	8	2	4	5	6	7	1	5	75
Marasmus				1	1	1	1	1		1		1	1			7
Phthisis	3	3	1	1	3	3	5		4	3	3	1	1	2	33	
Bronchitis	2	1	1		2	3	1	2		1	2	2	6		1	24
Pneumonia	3	2		2	2	4	1	2	2	1		7	2	1		29
Suicide																
Accidents			1	2				1								4

TABLE No. 6. Continued.

SHOWING MONTHLY MORTALITY IN WARDS FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES

FEBRUARY.

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
All Causes, all Ages	18	15	9	18	10	45	38	2	1	28	44	29	44	6	14	335
Rate of Mortality (Census)	85	24	23	19	31	2	25	22	2	1	26	19	2	21	14	21	...
All Causes under 5 Years	4	5	3	10	5	25	12	8	2	9	5	14	17	3	4	129
Small Pox																
Measles																
Scarlet Fever																...
Diphtheria		1		2		4	1	2	1	2		3	3		1	18
Whooping Cough																
Typhoid Fever			1			1						1	2	1		6
Malarial Fevers	1															1
Diarrhœal Diseases			1									1	1		1	4
Cerebro-Spinal Meningitis																
Other Zymotic Diseases				1		2	2			2		1	2	1		11
Total Zymotic Diseases	1	1	2	3		7	3	2	1	4		5	7	2	2	41
Marasmus	2		2		1	2	1			1	3	1		1	1	15
Phthisis	2	2	2		2		4	4	1	6		2	5		1	37
Bronchitis			1	1		4	3	2	2	2	1	6	2			24
Pneumonia	1	1	1	2	1	5	1	5	3	4	1	6	2		2	35
Suicide									1	1						2
Accidents	1					2					1		2		1	

TABLE No. 6.—Continued.

SHOWING MONTHLY MORTALITY IN WARDS FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES

MARCH.

WARDS.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
All Causes	17	12	16	24	14	11	14	37	13	33	19	[illegible]	45	5	15	345
Rate of Mort'y, Census of 85	23	18	27	41	28	22	17	28	21	31	25	28	22	12	23	
All Causes, under 5 Years	6	5	7		3	2	8	7	3	13	7	21	22	4	7	124
Small Pox																
Measles																
Scarlet Fever			1			2					1				1	4
Diphtheria	1		2	3		3	2			5	2	3	5		2	26
Whooping Cough								1								1
Typhoid Fever						1		1				1	2			5
Malarial Fevers			2					1		1				1	1	6
Diarrhœal Diseases																
Cerebro-Spinal Meningitis		1					1				1					3
Other Zymotic Diseases	1	1		1		2		3		5		4	2	1		19
Total Zymotic Diseases																
Marasmus			2				1		1	2	1	2	2		1	11
Phthisis	2	1		3	3		1	7	3	7	1	2	3		3	36
Bronchitis	1			1		6	2	2	3	4	1	1				21
Pneumonia	2	4		5	4	6		5		4	4	3	4			41
Suicide	1									1						1
Accidents	1				1	1				1		1				4

TABLE No. 6.—Continued.

SHOWING MONTHLY MORTALITY IN WARDS, FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES.

APRIL.

WARDS.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
All Causes—All Ages	12	13	11	19	9	40	9	20	11	26	10	33	55	9	19	306
Rate of Mortality per Census of 85	16	20	19	33	15	22	23	14	19	24	13	23	26	22	27	...
All Causes—under 5 Years	5	2	2	8	2	21	8	5	4	9	4	21	28	3	7	129
Small Pox																
Measles													1			1
Scarlet Fever					1	1				1			2			5
Diphtheria				+	1			2	2	1		4	3		4	27
Whooping Cough																
Typhoid Fever	1	1					1	1								4
Malarial Fevers	1										1					2
Diarrhœal Diseases											1		1	1		3
Cerebro-Spinal Meningitis											1					1
Other Zymotic Diseases						2	1			2			+			7
Total Zymotic Diseases	2	1		4	2	8	3	3	2	4	3	4	11	1	+	52
Marasmus	1					3				1		4	4	1		14
Phthisis		3	1	2		1	4	5	1	2	2		10	2	2	35
Bronchitis		1		2	2	2	1	1	2	5	1		2		1	20
Pneumonia	1		3			3	2	+	2	2	1	2	9	3	1	35
Suicides			1							1		1				3
Accidents				1		1		1		2		1		1		6

TABLE No. 6. Continued.

SHOWING MONTHLY MORTALITY BY WARDS FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES

MAY.

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
All Causes, all Ages	13	7	1	16	9	44	13	29	11	35	17	30	40	6	11	291
Rate of Mortality (Census of 85)	17	11	17	27	15	24	16	2	17	32	23	21	19	14	1	
All Causes under 5 Years	5	4	1	7	3	24	5	11	1	13	8	11	22	2	5	122
Small Pox																
Measles																
Scarlet Fever						1		2								3
Diphtheria				4		4		2	1	1						12
Whooping Cough										1						1
Typhoid Fever	1											1				2
Malarial Fevers			1	2		1		1						1		6
Diarrhœal Diseases		1			1	3										5
Cerebro-Spinal Meningitis																
Other Zymotic Diseases				1				2	1	1	1	1		1		8
Total Zymotic Diseases	1	1	1	7	1	9		7	2	3	1	2	6	2		43
Marasmus		1		1		2				1		1	2	1	1	10
Phthisis	3	2	1			3	1	4	4	2	2	4	5	1		32
Bronchitis						5		3	1	2		1	5		1	17
Pneumonia	2	1		1	1	1	2	3	1	2	3	3	4			23
Suicide											1	1				2
Accidents										1	1	1		1		2

TABLE No. 6.—Continued.

SHOWING MONTHLY MORTALITY BY WARDS, FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES

JUNE

WARDS.....	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
All causes, all ages.....	17	16	10	23	11	33	17	28	14	21	11	39	67	6	16	329
Rate of Mort'y, Census of '85	23.	24.	17.	39.	22.	17.	20.	20	21	19	15	28	32	14	24	.
Al. Causes, under 5 Years.	4	5	3	11	5	16	3	10	3	12	4	17	40	3	7	143
Small Pox.....																
Measles.....																
Scarlet Fever.....						2		1						1		4
Diphtheria.....		3	2	8	1			2					5			21
Whooping Cough.....																
Typhoid Fever.....				1								1	1			3
Malarial Fevers.....										1			1			2
Diarrhœal Diseases.....					2	5	1	1			1	7	3			20
Cerebro-Spinal Meningitis.									1		1					2
Other Zymotic Diseases.....					1	1				2		1			1	6
Tota. Zymotic Diseases.....		3	2	9	4	8	1	4	1	3	2	9	10	1	1	58
Marasmus.....		3		2		2		1		2		1	6		2	19
Phthisis.....	1	1		2		5	4	4	1	2		4	5	1	3	33
Bronchitis.....				1		1	1	1		1		1	4			10
Pneumonia.....					1	1	2		1	1	1	1	1	1		10
Suicide.....												1				1
Accidents.....				2	1			1	4			1	6		2	17

TABLE No. 6.—Continued.

SHOWING MONTHLY MORTALITY BY WARDS, FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES.

JULY.

WARDS	1	2	3	4	5	6	8	9	10	11	12	13	14	15	Total.
All causes all ages	18	2	13	1	12	37	18	36	8	27	13	52	8	5	21	324
Rate of Mort'y Census	85	18	22	17	24	19	22	25	12	25	17	37	24	12	32	
All Causes under 5 Years	5	5	3	8	4	26	7	21	2	19	2	34	39	1	15	196
Small Pox																
Measles																
Scarlet Fever												1			1
Diphtheria			1	1			1		1		1	3		1	9
Whooping Cough															
Typhoid Fever			1			1			1						4
Malarial Fevers							1			1			1	1	4
Diarrhœal Diseases	3	2	3	3	2	8	4	6	9	1	14	11		5	71
Cerebro-Spinal Meningitis												1			
Other Zymotic Diseases						1		2	1		2	1			7
Total Zymotic Diseases	3	2	5	4	2	1	4	1	12	2	17	17	1	7	97
Marasmus	1	1				3	1	4	1		2	5	1	4	23
Phthisis	3	1	1	1		5		3	2		2	3	2	1	2	26
Bronchitis				1		1	1	1				1	1		6
Pneumonia	2			1	1	2		2		2	1	3			1	15
Suicide												1			
Accidents		1	2	1			1		1		2	4				3

TABLE No. 6.—Continued.

SHOWING MONTHLY MORTALITY BY WARDS, FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES.

AUGUST

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total.
All Causes, all Ages	15	18	10	22	17	54	20	42	13	35	13	50	69	4	18	400
Rate of Mort'y, Census of '85	20	27	17	38	34	24	24	30	2	32	17	35	32	16	24	
All Causes, under 5 Years	9	8	4	10	10	38	7	19	8	24	5	36	48	3	8	237
Small Pox	.			.			.	..	.				..			. .
Measles						.				.	.					..
Scarlet Fever				.			..	...	..				1			1
Diphtheria				1	1	.	1		. ..	2	.	2	4		1	12
Whooping Cough			.	.												
Typhoid Fever						1	1	5		1		1		..		9
Malarial Fevers	..	.	.	1	.			...		.	1		...			2
Diarrhœal Diseases	6	4		3	5	19		8	2	10	3	16	21	1	6	104
Cerebro-Spinal Meningitis	..		.				1					.			.	1
Other Zymotic Diseases	....	.	1	2	. . .	...	1	.	...	1	1	2	1		...	10
Total Zymotic Diseases	6	4	1	7	6	20	4	14	2	14	5	21	27	1	7	139
Marasmus	1	2				5		3	1	3	..	8	7	1		31
Phthisis	1	1	2	2	1	5	1	3	1	2	2		3	.	4	28
Bronchitis		1	.		1	....	.	1	...	2				.		5
Pneumonia	1			1		1	2	2	.	1	.	2	2	....	1	13
Suicide		1	1		.		.		1	.	..		...	.....		3
Accidents				2		1		1			.	1	4		.	9

TABLE No. 6.—Continued.

SHEWING MONTHLY MORTALITY IN WARDS, FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES.

SEPTEMBER.

WARDS.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Tot.
All Causes, all Ages	13	6	6	14	13	40	21	32	8	24	8	40	57	4	11	297
Rate of Mort'y, Census of '85	17	9.	10.	24	26.	21	25.	23.	21	22.	11	28	26.	10	15	
All Causes, under 5 Years	5	3	1	8	3	20	7	15	1	12	5	20	27		7	136
Small Pox	-	-	-		-		-		-							
Measles	-		-				1						-		-	1
Scarlet Fever						1	1								-	2
Diphtheria				2	1	1	1			1	1		1			8
Whooping Cough				-												
Typhoid Fever	-			1	1	1		1		1		2	1		1	9
Malarial Fevers					1			-					1			3
Diarrhœal Diseases	2	1	1			4	2	2	1	2	2	4	6	-	2	33
Cerebro-Spinal Meningitis																
Other Zymotic Diseases				1	1		1	1			1	1	1			6
Total Zymotic Diseases	2	1	1	7	4	7	6	5	1	4	4	7	10		3	62
Marasmus				1		4	1	3		2		4	2		1	18
Phthisis				1	1	4	3	3	1	4		3	6		2	28
Bronchitis	1				1	1	1	1		1		2		1		9
Pneumonia		1				1				1		4	3		2	12
Suicide													2			2
Accidents	1				1			1		1		2	1			7

TABLE No. 6.—Continued.

SHOWING MONTHLY MORTALITY BY WARDS, FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES.

OCTOBER.

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total.
All Causes, all Ages	13	17	11	13	12	27	20	37	12	32	13	41	59	8	19	334
Rate of Mort'y, Census of '85	17.	26	19	22	24	14	24	26	18	27	17	29	27	19	25	
All Causes under 5 Years	4	6	4	5	5	15	8	13	4	14	3	22	25	2	10	141
Small Pox			..								...			..		
Measles..... ..				..							.				.	
Scarlet Fever		1								1				. .		2
Diphtheria ..		2		1			1	2	2	8	1	5	10		3	35
Whooping Cough ..													1			1
Typhoid Fever . . .	1		1					2		1		5	2	.		12
Malarial Fevers ..			1						1							2
Diarrhœal Diseases	1			1	1	3			2	1	2	1	2	2	1	17
Cerebro-Spinal Meningitis															.	
Other Zymotic Diseases				1			1	2		2		2	2	.	3	14
Total Zymotic Diseases	2	3	2	3	1	4	2	6	5	13	3	13	15	2	7	83
Marasmus. . ..		1			.	.		2		2	.	6	2		1	15
Phthisis..	3	2	3	1	2	4		4	1	1	1	1	10	2	2	38
Bronchitis		2			1	4		3		1		1	5		1	18
Pneumonia ..					2		2	2	1	3	1	1	1	1	2	16
Suicide		1					1					1				3
Accidents	1									1	1	2	2		1	8

TABLE No. 6.—Continued.

SHOWING MONTHLY MORTALITY BY WARDS FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES

NOVEMBER.

WARDS.....	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
All Causes, all Ages	8	9	13	13	13	23	13	30		24	9	35	51	5	19	218
Rate of Mort'y, Census of '85	11	14	15	22	22	6	14	21	11	2	12	23	24	12	28	
All Causes under 5 Years...	3	1	1	6	5	11	3	1	3	5	4	16	25	...	9	112
Small Pox			..						.		..	...		..		
Measles ...	.	.		..								.		..		
Scarlet Fever	.		.								..		.		...	
Diphtheria . ..	...		2	2	1			2		7	....	1	3	1	2	21
Whooping Cough ..													...	.	..	
Typhoid Fever.		1			1					2		1	2		1	8
Malarial Fevers				....		1		1			1	..	.	1		4
Diarrhœal Diseases		1		1					1	1		..	2			6
Cerebro-Spinal Meningitis														.		
Other Zymotic Diseases						1	1	3				1	1			7
Total Zymotic Diseases		2	2	3	2	2	1	6	1	1	1	3	5	2	3	46
Ma[illegible]			1		..	2		2		1		4	2		1	13
Pl[illegible] . .	1	2	2	2	2		2	3	2	2		1	7	.	2	28
Bron[illegible] .										1	1	1	5	.	3	11
Pn[illegible]	1	1		1				2		2	2	5	4	1	.	22
Su[illegible]			1	.		1	..	2						.		4
Ac[illegible]	1			1				1		..		1				4

TABLE No. 6.—Continued.

SHOWING MONTHLY MORTALITY IN WARDS FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES

DECEMBER.

WARDS.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
All Causes, all Ages	21	8	9	14	10	29	18	32	10	23	13	35	38	4	10	274
Rate of Mort'y, Census of 85	28	12	14	24	17	15	22	23	15	2	16	23	17	8	13	
All Causes under 5 Years	4	6	4	2	3	8	8	17	2	12	3	7	19	..	2	97
Small Pox																
Measles				..											..	
Scarlet Fever																
Diphtheria	..	4		2		1		5				1	4		1	18
Whooping Cough				..						2	1					3
Typhoid Fever			1	2			1	2				2				8
Malarial Fevers									1							1
Diarrhœal Diseases						1		1					1			3
Cerebro-Spinal Meningitis																
Other Zymotic Diseases				1	1	1		1	1			..	1			6
Total Zymotic Diseases		4	1	5	1	3		9	2	2	1	3	6		1	35
Marasmus	2					2	3	1				..	1			9
Phthisis	2	1	1		2	5	2	2	2	3	2	6	3	1	2	34
Bronchitis	1	1			1	2	2	2		6		1	2		2	20
Pneumonia	4	1	2	3	1	1	1	2		1		7	2			25
Suicide																
Accidents	1				.	2	2			2	1		3		1	12

REPORT OF ATTORNEY.

REPORT

OF THE

Attorney of the Board of Health.

NEWARK, N. J., January 7th, 1889.

To the Honorable the Board of Health of the City of Newark, N J

GENTLEMEN — Your Attorney herewith submits a brief report for the year 1888

First—Violations of the Code or Ordinances.

There were pending at the close of the year 1887, 13 prosecutions for violations of the Health Ordinances. During the year 1888, prosecutions were started against citizens for the same cause in 96 cases, making 109 prosecutions in all The disposal of these cases is shown by the following table.

Judgments recovered and paid		8
Judgments recovered, but unpaid		5
Defendants acquitted		7
Discontinuance without costs		13
Defendant returned, not found		2
Summons not served		4
Summons withdrawn		1
Discontinued on payment of costs		
Costs actually paid	55	
Costs not yet paid	1	65
Pending		5
Total		109

[illegible] the process of using the courts as a means of collection rather than as [illegible] the collection of penalties has been discontinued, and in most cases where the defendant expresses a willingness to comply with the Health laws, he is allowed to do so, and pay the accrued costs without the penalty. This course was persued in the cases in the foregoing table referred to as 'discontinued on payment of costs," or in 65 out of a total of 109 prosecutions. The wisdom [illegible] has never been attacked but many judgments in other proceedings have been made by reason of the Health laws. It occasions less friction between the Health authorities and the property owners [illegible] to work together in enforcement proceedings and accomplishes much more in advancement of the Health laws. The consequent loss of costs is also more than offset by the payment of costs with [illegible] the [illegible] has in relation to the property that looks to the observance of the Health laws, rather than the filling of the [illegible] with necessary penalties from pockets already subject to a heavy burden of taxation.

The fines collected in the seven cases in which the judgments have been paid, amount to $145.00, all of which has been turned over to the Health Officer

The authority of the Board has not been seriously challenged during the year, and there are no pending cases of such interest as to need mentioning

Second.—Violations of milk law

Sixteen suits have been instituted during the year against violators of the milk law. All have been for selling milk below the state standard. The cases have been disposed of as follows.

Fines paid	4
Costs paid and settlement by Board	5
Defendants acquitted	3
Juries disagreed	2
Defendant returned, not found	1
Pending	1
Total	16

The fines paid amounted to..... ..	$200 00	
With costs in settled cases, milk analysis fees paid	15.00	
		$215 00
Which amount has been disposed of as follows		
Paid to Health Officer	$115 00	
Costs paid in lost cases.....	74 06	
Cash in Attorney's hands.....	25 94	
		$215 00

The costs in cases lost, for which the Board was liable were paid from the fund in the Attorney's hands by authorization of the Board and include some small items for typewriting milk forms.

One of the milk cases lost that against Samuel Crane has been appealed and will be tried at the present term of the Essex Courts.

So much for the litigation of the Board. The other work of the Attorney is hardly capable of review in a report, yet it is an important part. It is the uniform practice to communicate by letter with citizens against whom complaints have been received from the Health Officer whenever the nature of the complaint makes it possible and reasonable so to do. Outside of the violations of the milk law three hundred and ninety-three complaints have been sent to the Attorney by the Health Officer, and the Board can judge of the correspondence and interviews attendant upon so many complaints.

The Sanitary Code, put in operation during the year makes the Board's work much more efficient, as under it, a great many matters needing attention from the Health Office can be readily that were before maintained in open defiance of both common and sanitary sense. The distribution of copies of the Code among citizens has already familiarized a great many with its provisions and the excuse of ignorance is not so frequently and so hastily made as formerly.

Respectfully submitted,

JOHN R. HARDIN,

Attorney of the Board of Health

REPORT OF CHEMIST.

REPORT

OF THE

CHEMIST of the BOARD of HEALTH.

NEWARK, N. J., January 1st, 1889.

To the Honorable the Board of Health of the City of Newark, N. J.:

GENTLEMEN.—I herewith submit my report of the work done in my department since my appointment as your chemist.

At the time of my appointment I was unable to receive samples of milk for analysis, as under the existing laws relative to the adulteration of milk, I was not duly authorized to make such analysis. That difficulty was removed, however, by the State Board of Health conferring upon me the necessary power early in January of last year, and I have since made analysis of all samples the Milk Inspector has delivered to me.

It would be superfluous, and neither do I feel prepared to discuss in this report the advantages of a perfectly pure milk supply to our citizens. I do wish, nevertheless, to devote some space to a series of analysis I have made of milk, with the hope that the results might be of value in helping to answer some of the many questions that are frequently asked about it, concerning the fairness of the State standard of 12 per cent. of milk solids, the quality of milk from test cows, the quality of milk from individual cows, of the milk remaining in the can after the larger portion has been dipped out and sold, etc. These are tabulated as follows:

REMARKS	Lactometer.	Tota Solids
Herd Milk		3 12
" " 10 cows	116	13 28
" "	119	14.04
" "	114	13 48
" "	117	14 12
" "	116	13 07
" "same next milking,	118	13.34
Herd Milk, 10 cows after being driven over route, 6 qts. left,	118	12 99
Herd Milk full can	11.	3 18
Herd Milk, same after being [illegible] over route, 5 qts. left,	111	13.18
Herd Milk,	126	12.69
" "	111	12 39
" "	107	12.38
" "	113	14.05
" " bottom of can,	112	13 23
Herd Milk, same full can,	108	13.24

REMARKS.	Lactometer.	Tota. Solids.
Herd Milk [illegible] ws	[illegible]	13 [illegible]
" "	113.	13 38
" " 5 qts. in can,	112	13 28
One cow's milk	115	12.70
" " "	112	13.22
" " "	110	14 43
" " strippings,	97	17 51
One cow's milk,	106	12 6[illegible]
" " "	111	13 67
" " "	110	13 09
" "	19	13 81
" " "	113	13 81
Fresh cow,	[illegible]	2 87
" "	108	12 79
" "	109	12 34
Alderney cow,	110	13.45
Holstein cow, fresh 15 qts per day,	117	12 86
Cow supposed to give poor milk,	121	14.40

By examining the above table it will be found that in no case did the solids in herd milk fall below 12 38 per cent, and that the average was 13.31 per cent. In the case of individual cows, the lowest was 12 6 per cent, and the average [illegible] per cent. [illegible] be the same as for herd milk, was for whole milk 13 04 per cent. [illegible] that they do not give milk quite as rich in solids, still it is well up above the requirements of the statute.

In the next table will be found some special analysis of milk from individual cows. Although these results may not be of much

practical value as they are so incomplete they show that further experiments in the same direction would be desirable.

REMARKS.	Lactometer	Total Solids
One cow's milk, fore milk,	127	11 12
Some " " whole "	107	14 00
One " "	107	15 17
Same " " 10 days later,	109	12.28
One " "	126	13 35
Same " " 3 weeks later,	114	12.78
One " " coming in in 12 weeks,	121	17 24
Same " " 4 days later,	124	17 27
Alderney cow,	98	17.11
Same " strippings,	86	19.64

During these examinations a sample of milk was brought to me by a milkman who said that it came from a small herd of seven cows at Lyons Farms. The solids in this sample were so low that I requested another sample and found the same results a few days later. I then determined to visit the farm from whence the milk came and see the cows milked. This I did and found the herd, as far as I was able to judge, in splendid condition. The sample I then took I found considerably richer in solids, although not up to the average for good herd milk. I also took samples from the two cows that were supposed to give the poorest milk, and the analysis together with others of milk from the same herd are as follows

REMARKS.	Lactometer	Total Solids.
Herd of 7 cows March 1,	105	13.22
" " " " " 3,	105	13
		12.56
(A) cow same herd March 8, supposed to give poorest milk,		1 .68
(B) cow same herd March 8, supposed to give poorest milk,		13.75
(A) cow April 9, fore milk,	118	1 .06
(A) " " " whole "	112	11 .8
(A) " " " strippings,		13 .5

Thus it will be seen that there are occasionally individual cows that have milk containing less than 2 per cent. of solids and that [illegible] cows that are supposed to give poor milk contain as high a percentage of solids as is called for in concerning the quality of milk

In the following tables [illegible] the results of the analysis of samples bought in the [illegible] inspector during the year

No. of Sample	Water	Total Solids.	Fat.	Solids not fat	Specific Gravity	Remarks
49	89.43	10.57	2 57	8	1.02744	Watered milk.
96	89 11	10 89	2 66	8.23	1 02813	" "
97	88 91	11 09	2 86	8.23	1.02723	" "
98	87 10	12 90	3 36	9.54	1 03266	Good "
99	89 47	10 53	2 78	7.75	1 02693	Watered "
10	89.62	10 38	2 89	7.49	1 02619	" "
11	90 43	9 57	08	9.57	1 03391	Skim "
93	90 17	9 83	1 55	8.28	1.02561	" " mixed with whole milk.
89	89 38	10 62	2 96	7 66	1 0253	Watered milk.
88	88 65	11 35	2 03	9 32	1 03185	Skim milk mixed with whole milk.
50	89 30	10.70	2 46	8.24	1.02784	Watered milk.
52	89 71	10.29	2 57	7.72	1 02535	" "
51	89 99	10.01	2 61	7 40	1 02396	" "
55	88.23	11.77	2 43	8 34	1.03214	" "
92	91.79	8 21	2 37	5.84	1 01914	" "
81	89 39	10 61	2 79	7.82	1 02523	" "
83	89 80	10.20	2 58	7.52	1 02558	" "
87	92.84	7 16	1 99	5 17	1 0169	" "
86	87.29	12.71	4 12	8.59	1.02634	Probably watered
82	91 04	8 96	2 57	6 39	1 02059	Watered milk

Of the entire number of samples, there was but one (No. 98) that was not either skimmed or watered; the amount of water being added varying according to calculations that are somewhat in favor of the milkman, from 5 to 45 per cent

It has often been claimed during trial or at other times, that in the case of a milk containing say, about 11 per cent of total solids, that it was very near the standard of 12 per cent being only 1 per cent below it. There is, I think, considerable misunderstanding about this; among the jurymen at least.

If a milk original had 12 per cent of solids and was found on analysis to have 11 per cent, the quantity would be reduced by 1 12 or 8 1 3 per cent instead of the seeming reduction of 1 per

nt milk we know that average herd milk contains 13 per cent solids the extra reduction of the case of an adulterated milk having 11 per cent., would be about 15.39 per cent.

In connection with this. The same milk having 11 per cent. of solids would contain 89 per cent of water or 1 per cent does not 88 per cent allowed by law as a parent's small amount which does not by any means represent the amount that was added to the milk. The amount of this extra water can be estimated by the proportion that which the per cent of solids, not fat serves as a basis. This factor is a very constant quantity in milk, and rarely falls below 9 3 per cent. However, to avoid any occasional error, it is costomary with many analysts to use 9 per cent. as a basis; thus usually making an error in the favor of the milkman. The formula is 100 solids, not fat, 9 percentage of original milk. Applying this to number 97 in the last table, we have 100 8 23-9, 91.44 per cent., the amount of the original milk in 100 quarts, the rest, 8 56 per cent. being water. This, on account of the allowance before mentioned is probably too low and should be about 10 per cent.

In addition to the examination of milk I would suggest that some attention be given to ascertaining the quality of the examination oils now sold throughout the city. There is, as you are aware, a law on this subject which requires that the oil shall not test below a certain test, but the experiments I have made with lamps would indicate that it is sometimes violated.

There are many other investigations that could be made, which would no doubt be important to the public health, and these I should think that examinations of the character of water used in the manufacture of popular beverages would be an important one.

In conclusion, I wish to compliment Mr. Negles, the Milk Inspector, on the care he has shown in taking samples for analysis, never having taken more than the legal quantity, and that proved to be good milk and in the tests he expressed his opinion that it was good when he delivered it.

Very respectfully,

HERBERT B. BALDWIN,

Chemist of the Board of Health

FIFTH

Annual Report

—OF THE—

BOARD OF HEALTH

—OF THE—

CITY OF NEWARK, N. J.,

FOR THE YEAR ENDING

DECEMBER 31st, 1889.

NEWARK, N. J.
FRANCIS BELL, STATIONER AND PRINTER,
761 to 767 Broad Street.
1890.

FIFTH

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1890

BOARD OF HEALTH

— OF THE —

CITY OF NEWARK, N. J.

OFFICE OF THE BOARD,
CITY HALL, THIRD FLOOR, ROOMS 5 AND 6

MEMBERS

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ALDERMAN ALEXANDER H. JOHNSON,
MR HENRY R BAKER,
MR TYLER PARMLY,
MR SAMUEL S SARGEANT,
DR. CHARLES M ZEH,
DR. HERMAN C. H. HEROLD,
DR F. B MANDEVILLE,
MR WILLIAM B. GUILD

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On Sanitation —Dr. Mandeville, Dr Zeh, Mr Sargeant, Dr. Herold, Mr Parmly.

On Laws and Ordinances. —Mr. Guild, Dr. Zeh, Mr Baker.

On Conference and Appointments —Mr Sargeant, Mr Baker, Mr. Parmly

On Supplies. —Mr Parmly, Alderman Johnson, Mr Guild

OFFICERS OF THE BOARD.

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DAVID D. CHANDLER, *Superintendent of Sanitary Force*

CHAUNCEY G. PARKER, *Attorney*

C PHILLIPS BASSETT, C E , E. M , *Consulting Engineer*

HERBERT B BALDWIN, *Chemist*

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First and Eighth Wards Thomas F Freeman
Second and Fourth Wards —Bernard Nulty
Third, Ninth and Fourteenth Wards Charles H. Edwards.
Fifth and Tenth Wards —Lewis H Bridgem.
Sixth and Seventh Wards William H. Lyle.
Eleventh and Fifteenth Wards.—David Duffy.
Twelfth Ward George W. Schmitt.
Thirteenth Ward —Victor L. Hesse.

MEAT INSPECTORS

WERNER RUNGE, D. V. S. PHILIP MILLER

MILK INSPECTOR

HENRY NEGLES.

OUT-DOOR POOR DEPARTMENT

CITY DISPENSARY, CENTRE MARKET BUILDING, ROOM 12

CITY APOTHECARY

THOMAS P WHITENACK

DISTRICT PHYSICIANS AND ATTENDING PHYSICIANS TO DISPENSARY.

First District, 1st and Eighth Wards -Dr Ed. DeL. Bradt
Second District, 2d, 3d and 4th Wards. -Dr. Arthur C. Dougherty
Third District, 9th and 10th Wards.—Dr. F. L. Mey
Fourth District, 5th and 12th Wards —Dr. Philip Roth, Jr
Fifth District, 13th and 14th Wards. -Dr Henry A Kornemann.
Sixth District, 7th and 15th Wards (east of Newark St.)—Dr Stephen W. Van Duyne.
Seventh District, 6th Ward Dr Vincent Nager
Eighth District, 11th Ward and 7th and 15th Wards (west of Newark St.)—Dr Edward Everitt

Regular meetings of the Board are held in the Mayor's office, City Hall, on the first Monday of each month, at 8 o'clock P M

REPORT.

ANNUAL REPORT

—OF THE

HEALTH OFFICER.

NEWARK, N. J., January 1st, 1890.

To the Honorable, the Board of Health of the City of Newark, N. J.

GENTLEMEN:—I have the honor herewith to transmit this, the fifth annual report of the Department of Public Health, for the year ending December 31st, 1889.

As the executive officer of the Board, on whom the responsibility of the proper execution of its laws and ordinances is placed, and to whom the general public looks for the improvement in the sanitary condition of the city, I desire to call your attention to a few matters that demand more than a passing notice.

VITAL STATISTICS.

The City Clerk of our city as the register of vital facts and statistics, is the collector and custodian of the reports of Births, Marriages and Deaths. He has endeavored to the best of his ability during his term of office to obtain correct returns of Births and Marriages, but from a comparison of the reports of 1888 and 1889, I am satisfied that matters instead of getting better, are growing worse. The difficulty is this: while, by virtue of a state law, he is the custodian of the reports the Board of Health is made responsible for all suits for violation of this law. The law should be changed at once, so that the custodian shall have the power to bring the suit, and this will correct the evil in a very short time.

BIRTHS.

During the year 5,134 births were reported. The totals for 1887 and 1888 were 4,870 and 5,115 respectively. It appears that [illegible] 1889 [illegible] 13, two children at least to [illegible] if not more.

Of the 5,134 reported, 5,064 were white and 70 colored, 2,587 [illegible] 2,547 [illegible] classes. Of 211 [illegible] stated 5,088 were legitimate and 46 illegitimate. The birth rate per thousand of the population was 26.87.

MARRIAGES.

There were 1,646 marriages reported. The totals for 1887 and 1888 were 1,632 and 1,668 respectively. It is seen from this that [illegible] 1889 [illegible] 1887, but [illegible] 1888. [illegible] 1,646 [illegible] solemnized in this city during the year 1889. Of the 1,646 marriages reported, 1,604 were white and 42 colored. The marriage rate per thousand of the population was 8 61.

DEATHS.

The total number of deaths [illegible] was 4,629 representing a [illegible] the population, estimated at 191,305 of 24.23. This shows an increase from 1888, when it was 22 96.

Of the 4,629 deaths, 4,474 were white and 155 colored.

Population, white (estimated,) 187,230, death rate 23 88

Population, colored (estimated,)4,075, death rate 38 03.

The deaths with the death rate by quarters was as follows.

First Quarter,	1,072,	Death Rate	23.69
Second "	1,109,	"	23.97
Third " (Summer months)	1,284,	"	27 26
Fourth "	1,164,	"	24 32

The [illegible] was 1,273 and [illegible] 1,[illegible] [illegible] deaths [illegible] Pneumonia, [illegible] 1,[illegible] [illegible] was [illegible]

[illegible] from ten minutes to a few hours only, be deducted from [illegible] above, the deaths under five years of age would number 1,812, and under one year of age 1,001. The percentage of deaths under five years of age to the total number of deaths was 42.40. The deaths [illegible] years of age, [illegible] thousand of births registered was 223 but as I have mentioned before, the reports of births are very incomplete, and this cannot be considered reliable.

The deaths referred to the zymotic diseases which had been 752 for 1888 and [illegible] 1888, increased again during 1889 to 1,014.

Of this class

Measles caused	21	deaths,	an	increase	over	1888	of	19
Fever Scarlet "	46	"	"	"	"	"	"	21
Diphtheria & Croup caused	366	deaths,	an	increase	over	"	"	52
Whooping Cough "	39	"	"	"	"	"	"	33
Fever Typhoid "	172	"	"	"	"	"	"	86
Fevers Malarial "	32	"	a	decrease	from	"	"	5
Diarrhœal Diseases "	269	"	"	"	"	"	"	2

With the exception of 29 deaths in public institutions, they were divided among the different wards as follows:

1st Ward	30	Death Rate	3.06.	8th Ward	93,	Death Rate	5.01
2d "	50,	"	" 5.62.	9th "	15,	"	" 1.79
3d "	21,	"	" 2.59.	10th "	75,	"	" 5.07
4th "	38,	"	" 4.91	11th "	52,	"	" 4.97
5th "	42,	"	" 5.99	12th "	137,	"	" 7.21
6th "	156,	"	" 6.22.	13th "	172,	"	" 6.37
7th "	46,	"	" 4.11.	14th "	18,	"	" 2.84

15th Ward 42, Death Rate 4.49.

Of the constitutional diseases, Phthisis Pulmonalis caused 485 deaths, an increase of 47 over the previous year.

Of the principal respiratory diseases, Bronchitis caused 210 deaths and Pneumonia 355.

There were 95 deaths from accidents, 1 homicide and 29 suicides.

CONTAGIOUS AND INFECTIOUS DISEASES.

During the year 1889 there was an alarming increase in the number of cases of contagious and infectious diseases. The record is as follows:

Diphtheria	1,282 cases,	an increase over 1888	333, over 1887 660
Fever Scarlet,	744 "	" " " "	278, " " 453
Fever Typhoid,	538 "	" " " "	103, " " 413
Croup Membranous	66 "	a decrease from "	5, from " 18

There was also a startling increase in deaths from these diseases as can be seen under the head of "Vital Statistics."

The first question that would naturally arise in this connection is: What is the cause and is there no remedy? By the provisions of our Code, the Board has the power to deal with these diseases in such a way as to conquer them, but it must be confessed that that authority is not exercised. This is the cause. With proper supervision this state of affairs should not exist and the Board should take hold of this matter at once with the determination to stamp them out. If a case of Small Pox occurs in the city every inhabitant is startled at once, there are large demands for vaccine, and the doctors are overrun with orders to call and vaccinate their patients. Every city of any size has its Small Pox Hospital, which is used on an average about once in five or six years, and then only for a few weeks. Why? Because when a case occurs rigid measures are adopted, and the disease is nipped out at its very inception. We all know that Small Pox is one of the most contagious of diseases, and it only illustrates that if the same measures were adopted in other diseases of the same class we could stamp them out in the same way. Every day, under present circumstances, some poor child loses its life, and I can recall a few instances during the past two years where whole families of children have been wiped out, where only one case in each family need have occurred had proper measures been adopted. With due regard to our physicians, I am obliged to record the fact that there are a number who are very careless about reporting their cases, sometimes the patient recovering or dying before they think of their duty. This, from the other

children of the family continuing to attend school, becomes another factor in the spread of contagion.

The question now is, what is the remedy? Two words will answer it, "Isolation and Disinfection." How are these principles to be carried out?

First: Circulars should be sent to all physicians showing the necessity of the Board being advised of the existence of a case in order that the proper machinery may be put in operation to stop its spread then and there.

Second: For the Board either to erect a hospital for contagious diseases, or arrange with the Newark City Hospital authorities for a wing in their institution, in which to place all cases that cannot be isolated at home.

Third: Circulars of instruction should be printed, to be left with a family and neighboring families for their guidance in the event of a case occuring.

When a postal reporting a case is received at the health office, a duplicate report should at once be sent to the Board of Education for their guidance. An inspector should be dispatched to the house where the disease exists, and if the case can be properly isolated he should see that it is done at once. A thorough inspection of the premises should be made and such questions asked as might ascertain where the disease originated, the circular of instruction should then be given to the family, and a placard stating what disease exists on the premises should be placed in a prominent position on the front of the house to prevent other persons from visiting the premises. If, however, the inspector finds that it is impossible to carry out the principles of isolation this should be reported at the office and arrangements made to remove the case to the hospital at once. At this point I might make this suggestion.—A milk supply often times being the cause of an outbreak of disease, all milk dealers both wholesale and retail, should be required to register their names residence and sources of their milk supply at the office of the Board. In this way when an inspector states in his report where the milk is purchased, the original source can be traced and farms and dairies can be inspected at a moments notice, if thought advisable.

Under present rules the duty of furnishing a certificate allowing children living in an infected house to return to school is imposed upon the attending physician. This should be changed so that when the patient has recovered or death occured, the health department should be notified of that fact by the attending physician upon postals to be furnished for that purpose the premises should then be disinfected under the personal surveillance of an inspector of this Board after which the placard can be removed and a certificate furnished by the health officer that all danger of communicating the disease to others has passed and it will be perfectly safe for any child to return to school.

To show results obtained by carrying out a plan of this kind I will present a short extract from a report of Dr. H. B. Baker, Secretary of the Michigan State Board of Health. He states "that in 118 outbreaks of Diphtheria in which isolation and disinfection or both were neglected, there averaged 11.79 cases and 2.51 deaths per outbreak, while in 78 outbreaks in which isolation and disinfection were both enforced, there averaged only 2.54 cases and .65 deaths per outbreak, indicating a saving of 9.25 cases and 1.86 lives per outbreak. The same results were attained with reference to Scarlet Fever and other contagious diseases. Thus the local boards of health and health officers in Michigan who faithfully enforced restrictive measures, had the satisfaction of knowing that their efforts proved of solid advantage in preventing much sickness and many deaths.

I sincerely trust that this, one of the most sacred trusts imposed upon a Board of Health the saving of human lives will receive the attention it merits and that the measures mentioned above will be adopted and these diseases removed from our midst.

HOUSE TO HOUSE INSPECTION

This is one of the most important works ever undertaken by the Board. When finished we will have a complete sanitary survey of every piece of property in the city. This work was started in the Fall of 1885, and by the Fall of 1887, 14,283 houses were inspected with the result of ferreting out numerous cases of nuisances, defective plumbing etc. About that time however, the Board passed

an ordinance which is without doubt one of the best we have in our Code that requiring all drains extending from houses to outside sewers and other receptacles to be inspected by an inspector of this Board and by him approved before being covered. The magnitude of this work was not ascertained until the ordinance was put in operation, but it has had the effect of stopping the house-to-house inspection, as the sewer work, looking after contagious diseases and examining into complaints occupies all the time of the inspectors. This inspection should however be completed, as it accomplishes the most toward sanitary reforms, improvements will be made more cheerfully by owners of property from notices sent out as a result of such inspection for the following reason. If a complaint against a certain piece of property is left at the office, an inspector visits the premises and if anything exists in violation of the Code, a notice is sent to the owner or agent at once, calling his attention to the same The same thing may exist on the adjoining property, and fault is found that his property is the one selected on which to make the improvement. With a house-to house inspection, all parties are served alike, and after comparing notices and finding no one has been "neglected," orders are at once given for the work to be done Another very important matter being accomplished by this work is the ascertaining that large numbers of individuals have sewer connections to their premises for which the city has never received any remuneration. From the work already accomplished, the city will be the richer by many thousands of dollars With ten thousand more houses to be inspected, it can be readily seen that not only will many nuisances and cases of defective plumbing be found, but many more thousands of dollars will be placed in the City Treasury. How can this work be finished without additional help? If the Board will purchase a horse and wagon, one man can be detailed to look after the inspection of sewer drains, and the other seven can then continue this work

THE OCCUPANCY OF BUILDINGS.

The occupancy of a building can be regulated by Section 12 of the Code That there is terrific overcrowding and lack of ventilation

the large number of Italian and Polish lodging houses, as well as the tenements in certain sections of the city, are known. In the lodging house assessment roll prepared the crowded rights with apparently unrestricted privilege to the accumulated profits made by the keepers. In tenements with large families occupying small and poorly ventilated apartments, and with what results? That large numbers of children annually in these homes, that under favorable circumstances would have escaped, do but little more than drag through years of disease, overtaken by constitutions so developed that early death comes prematurely. What is our duty under such circumstances? So far as the lodging houses are concerned, we can break up the business in case it is carried on as prescribed by the Board. As regards the tenement houses, we can by inspection of the cooperating physicians visit the apartments and by means of certain information, teach the people how to live and rear healthy offspring. We should hesitate to take the initiative in regard to this work, as it is sure to bring the Board into a legal contest almost on the start. However, a standard should be definitely set as to what the cubic feet of space per individual is to be allowed and then enforce the law at once.

INSPECTION OF ARTICLES OF FOOD AND DRINK.

Our system of slaughtering inspection is not as strict as those of most Boards of Health, and this is due to the way in which the inspection is carried out. The inspection as at present carried on is simply an inspection of the carcass. Such an inspection is not sufficient to exclude cases of disease which are not manifest. In order that it should be carried out as follows:

A veterinary should be employed exclusively for the duties. He must be a graduate of a veterinary school of high standing. Any person who has had long experience, such as cattle drovers, from long practice, is at times a competent inspector, but the best results can be obtained only by the inspection of a veterinary. The whole carcass should be examined, not only the external surface of the carcass be examined, but the internal organs at the time of their

removal, for disease might have existed and escaped the observation of the inspector at his ante-mortem examination. We all know how careful the Hebrews are in regard to the meat they eat. The animal has to be killed by a "Schaechter," and after being opened, all of the internal organs as well as the carcass is carefully examined by that person. If any blemish or defect is found, the whole carcass is rejected.

While I do not think we should carry our rejections to the extent the Hebrews do, I think so far as the inspection is concerned, they set us a good example.

I do not know of any improvement that can be made in the inspection of meat in the shops, and of vegetables and fruit, except that when condemnation is necessary, all such articles should be injected or saturated with Carbolic Acid, to prevent a sale after the inspector leaves, which might possibly occur under present circumstances.

The inspection of milk is another thing that demands careful attention from a Board of Health. As carried on in this city in the past, it was not attended with the success it should have attained. This being recognized by the Board, the inspection was discontinued last September. A proper plan of inspection should however be devised at an early date and this work again started, as some dealers may take advantage of its discontinuance.

Other articles of food together with drugs should receive attention, the public at large being no doubt constantly imposed upon by unscrupulous dealers. Samples of these articles should be purchased, submitted to our Chemist for examination, and in case of adulteration, suit against the offender should be instituted.

COLLECTION AND DISPOSITION OF GARBAGE

In a pamphlet recently published in England the author contended "that the main thing to attain for populations, is the highest procurable cleanliness of soil, air and water, and that an unhealthy town has no other meaning than a proportionate accumulation of decaying and putrescible matter, such as surface impurities in streets, yards and corners." In certain sections of our own city there are

[illegible] and [illegible] and from our inhabitants, places the responsibility for the largest part of it on the parties who have contracted for the removal of our ashes and garbage. When the contract for the collection of this material was signed, the contractor bound himself to collect in certain districts every day, and outside of these districts in the city limits every other day. I am prepared through reports made to me by inspectors of the Board to show that he does not live up to this contract. That there are streets in the center of the city where the wagons do not go every day, streets in the outside districts where a [illegible] are not seen at all. The men who collect this material appear to have no definite rules for their guidance One day a wagon will pass through a street at seven a. m. The next day it is just as liable to be four p. m. as any other time when the wagon appears. [illegible] is the overloading of wagons. This is of daily occurrence all over the city I have seen the contents of boxes deposited on one side of the wagon by the collector, only to fall in the street on the other. Finally when the wagon starts for the "dumps" every inequality in a street causes more or less of the contents to fall from the wagon, so that [illegible] has been lost. With collections made in this manner is it at all strange that in our dirt streets, especially in the tenement districts, boxes and barrels are overturned as the quickest way to get rid of this waste. This is a very serious matter, and with the report made by a committee of this Board of the very successful methods by which this material is handled and disposed of in the cities of the West, the remedy is a very easy one. Certainly the time is now at [illegible] in the next, that garbage should not be used to fill in our low lands on which, at no distant day, houses will be erected.

REMOVAL AND DISPOSITION OF NIGHT SOIL

The collection of this material is regulated by the Code, in the

consideration of this subject we should start at the fountain head, and examine into the construction of the appliances used by the persons engaged in this business. We have at the present time nine persons licensed to do this work. While all the parties are not provided with pumps, all but three have Dunnigans which are in good condition. Those belonging to these three are never in anything but a leaky and filthy condition. Our laws state that no work shall be done without these processes where a pump can be used, and yet this is being constantly done by nearly every one engaged in the work. The question might be asked why is this tolerated? The answer is, that in all instances where a complaint for a case can be made against the accused, suit is started, but in a city of this size, this work can be carried on for months at a time, and numerous instances missed where a violation takes place. A permit is also required to be taken before any work can be done, yet I am satisfied that a quantity of work is being done without the necessary permits being obtained, and the explanation of the other covers this. This brings us to a remedy, and in this remedy another serious evil can be averted. At the present time the scavengers are depositing their refuse in different places around the city. If anything is said, the first reply is "Why don't the Board provide us a dumping place?" And this is just what the Board should do. Such a place should be provided, and at this place a plant should be erected for the destruction of this refuse. Then instead of having it spread broadcast upon the meadows and outlying farms to scatter the seeds of disease, it would be burnt up. In addition to this a series of permits could be devised for distribution to the scavengers, these to be collected when the material is dumped at the works and returned to the office. Permits would then be obtained when ever work was done, and in case material was taken to the works in Dunnigans which should be in tanks, a report of the same could be sent to the office and the offender prosecuted.

LEGAL PROCEEDINGS.

I desire now to call your attention to the proceedings adopted in case of neglect on the part of an owner or agent to comply with a notice

when issued. It had, in the earlier part of the year, been the

effect is made out at once and filed away.

Now if the person sees fit to pay no attention whatever to the

ing it will come before any trouble occurs. If the plan outlined above is carried out, it will take only a very short time to demonstrate that the Board of Health, when a notice is issued, intends to follow it up immediately and not await the pleasure of the person receiving it

And now gentlemen I have only one favor to ask of you That you will carefully consider the recommendations I have made

The subjects dealt with need speedy action at your hands. I have endeavored to present facts only, while the conditions as represented do exist, the fault is not in all cases with the Board of Health for not wanting to do its duty, but from the fact of not having the means to carry out this work Our great difficulty in the past has been that bugbear of Sanitarian's "Expense." Our ap-

any reforms. To accomplish the measures recommended, will demand a much larger appropriation than we have heretofore received, It cannot be granted for a better object than that of showing a portion of our population how to live, but above all the saving of human life. In this city of 191,000 inhabitants, an appropriation of $13,000 is about one-half of what it should be It is now the time of the year for the Board to make out its budget of expenses for the coming year, to be presented to the Common Council. This should not be for less than $25,000, and if, when the budget is presented, the gentlemen of the Board will appear before that body and demonstrate to them what conditions exists at the present time, and that these evils cannot be corrected, but will grow worse unless means are given whereby our work can be done properly, I cannot see how that amount can be refused. And if that amount is obtained, and continued from year to year, we can show results that will compare favorably with any other Eastern city, or in fact with any city of our union.

SANITARY DEPARTMENT AND MILK INSPECTION

The following gives a summary of all work accomplished in this connection during the year

Notices served for abatement of nuisances.....	1,784
Abatements..	1,654
Notices served to rectify defective plumbing and drainage .	174
Rectifications..	101
Permits granted for sewer connections	150
Number of sewer drains inspected..... ...	1353
Permits granted for cleaning privy vaults.	197
Permits granted for cleaning cesspools.. .	41
Permits granted for keeping cows and goats.	38
Number of samples of milk tested.	238
Number of samples sent to chemist	7
Sunken lots filled...	79

MEAT AND LIVE STOCK DEPARTMENT

The following gives the inspections in this D[illegible] with the condemnations for the year

Months.	Beef Cattle	Hogs	Calves.	Sheep	
January.....	2,790	4,761	2,386	4,535	1[illegible]
F[illegible]	2,204	3,628	2 340	4,693	1[illegible]
M[illegible]	2 469	2,563	3,268	3,868	1[illegible]
[illegible]	3,022	4,049	5 506	5,117	[illegible]
M[illegible]	2,299	2,524	9 383	6,460	[illegible]
[illegible]	2,402	3,072	8,327	8,902	[illegible]
J[illegible]	2,935	3,795	6,163	7,034	[illegible]
[illegible]	3,110	4 257	5 626	7,371	[illegible]
S[illegible]	3,061	3,672	4,761	7,402	[illegible]
O[illegible]	3,137	4,621	4,217	8,100	[illegible]
November.	2,934	4,621	4 572	7,091	[illegible]
December.	3,546	6,465	4 163	6,079	[illegible]
Totals	33,909	48,006	60 762	76,652	219 329

The following are the condemnations

	NUMBER
Cattle Beef	22
Calves	137
Sheep....	18

QUARANTINED

	NUMBER
Cattle..	4
Calves .	1

ARTICLES CONDEMNED IN MARKETS

	POUNDS
Poultry..	[illegible]
Veal..	[illegible]
Pork. ..	[illegible]
Mutton	[illegible]
[illegible]	13

	NUMBER
Rabbits	600
	BARRELS
Potatoes	28
Apples	1[illegible]
Musk Melons	1[illegible]
Cocoanuts	3
	BOXES
Lemons	1
Peaches	1[illegible]
Beans	5
	BUNCHES
Asparagus	100

Also a large quantity of small fruit upon stands in various parts of the city

I desire to state in this connection, that during the month of December, a systematic disinfection of all slaughter houses as carried out by the U. S Government in cases of Pluro Pneumonia, was commenced under the supervision of Veternary Inspector Runze, and is to be continued until all slaughter houses and their surroundings are thoroughly cleaned.

OUT DOOR POOR

In the month of June last, after a long and painful illness, during the greater part of which he was at his post of duty, the Board lost one of its most faithful employes by death. I refer to Mr J. Frank Cramer, late City Apothecary He was ever faithful to the trust imposed upon him, and no employe of the City Government was held in higher regard by all who came in contact with him. He has gone to his reward. Let the encomium be applied to him "Well done, good and faithful servant." Since the death of Mr. Cramer, the duties of City Apothecary have been performed in a very creditable manner by Mr. Thomas P. Whitenack.

The following shows the work done in this Department during the year

Number of patients treated at clinics .	3 234	
Number of dispensary prescriptions filled . .	..	4,445
Number of district prescriptions filled	..	4,970
Total written and dispensed		9,415
Vaccinations		335

The total amount spent for drugs during the year was $[illegible] making an average cost per prescription of nine and three-fifths cents.

The following table shows by Districts the number of patients treated, visits made, prescriptions written, number of patients sent to hospitals and deaths for year 1889

District	Location	Patients	Visits Made	Prescriptions Written	Sent to Hospitals	Deaths
First. .	1st and 8th Wards ..	317	720	447	28	13
Second.. .	2d, 3d and 4th Wards.	370	654	711	72	19
Third .	9th and 10th Wards	448	1,237	1,031	22	20
Fourth . .	5th and 12th Wards. .	886	1,474	908	83	50
Fifth	13th and 14th Wards.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sixth	7th and 15th Wards, east of Newark St .	662	1,754	633	30	26
Seventh	6th Ward.....	471	879	319	19	11
Eighth ..	11th, 7th & 15th Wds , west of Newark St..	510	839	554	42	32
	Grand Total	4,251	8 421	4.970	345	181

The tables of Births, Marriages and Deaths will be found appended to the report, and those who are interested in vital statistics, are worthy of perusal.

Respectfully submitted,

DAVID L. WALLACE, M. D.,

Health Officer.

TABLES.

TABLE No. 1.

SHOWING NUMBER OF BIRTHS REPORTED FOR EACH MONTH WITH COLOR, SEX, NATIVITY OF PARENTS TOGETHER WITH TOTAL FOR THE YEAR AND THE BIRTH RATE.

Month	Total	Color		Sex			Nativity of Parents								Name not reported			
		White	Colored	Male	Female	Not stated	Native	Foreign	Foreign Father only	Foreign Mother only	Native Father	Native Mother	Native not stated	Foreign not stated	Stated	Not stated	Illegitimate	Illegitimate
Jan.	594	547	47	272	278	4	209	198	55	27			3	1	1	272	282	550	4
Feb.	440	435	5	211	226	3	164	193	52	26	1	....	2	1	1	254	186	438	2
Mar.	386	373	13	182	197	1	126	186	44	20			2	2		220	166	374	6
April	425	419	6	224	201		165	182	48	23	....	3	4			227	198	420	5
May	367	360	7	177	188	2	147	157	38	17	2	2		1	3	221	146	365	2
June	394	385	9	203	190	1	133	187	42	28			2	1	1	230	164	390	4
July	328	324	4	158	170		114	161	36	18					1	140	138	278	
Aug.	500	494	6	271	229		210	193	56	24	2		6	4		286	231	491	9
Sept.	404	400	4	230	200	4	175	200	66	37		2	1	1	3	261	195	432	7
Oct.	398	397	1	213	183	2	166	175	32	24	..	1	..	..	....	192	206	398	
Nov.	478	470	8	248	226	4	193	209	47	28	....	....	..	1		270	208	477	1
Dec.	376	368	8	198	178	..	131	175	33	27	..	..	7	2	1	232	144	376	11
Totals	5,134	5,064	70	2,587	2,520	21	1,893	2,225	549	302	5	8	27	14	11	2,870	2,268	5,088	46

Birth rate per thousand of the population, 26.87.

TABLE No. 2.

SHOWING THE NUMBER OF MARRIAGES REPORTED MONTHLY, TOGETHER WITH THE TOTAL FOR THE YEAR, AND THE MARRIAGE RATE

MONTH.	Total.	White		Colored		Native		Foreign		Nativity not stated		1st Marriage.		2d Marriage		3d Marriage		4th Marriage		Marriage not Stated	
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
January	145	140	140	5	5	73	79	71	62	1	4	108	112	24	16	1				12	17
February	130	125	125	5	5	74	80	54	42	2	8	97	96	21	17	2	1	..	....	10	16
March	93	87	87	6	6	55	63	38	28		2	75	79	13	8	1				4	6
April	68	67	67	1	1	42	46	26	21		1	55	57	8	6	2	...	...	5th 1	3	4
May	118	116	116	2	2	64	72	53	43	1	3	86	91	18	11	2	1			12	15
June	268	267	267	1	1	145	155	121	104	2	9	218	209	32	27	1	3		1	17	28
July	117	111	111	6	6	64	68	53	44		5	97	99	15	12					5	6
August	119	113	113	6	6	65	69	54	44		6	97	100	16	12			...		6	7
September	89	87	87	2	2	43	48	41	33	5	8	67	67	12	8		3	.	..	10	11
October	126	124	124	2	2	67	74	59	50	.	2	96	93	20	20	1	1	1	....	8	12
November	158	158	158			80	99	78	56	..	3	119	120	25	25	2	1			12	12
December	215	209	209	6	6	115	122	100	91		2	168	161	29	34	2	1	1	.	15	19
Total	1,646	1 604	1,604	42	42	887	975	748	618	11	53	1,283	1 284	233	196	14	11	2	1	114	153

Marriage rate per thousand of the population, 8 61.

TABLE No. 3.

SHOWING CAUSES OF DEATH WITH AGES OF DECEDENTS TOGETHER WITH THE SEX AND NATIVITY, ALSO THE DEATH RATE PER THOUSAND OF THE POPULATION FROM EACH DISEASE

CAUSES OF DEATH	Age by Years.									Sex.		Nativity.				
	1 Year and under.	1 to 2 Years	2 to 5 Years	Total under 5 Years.	5 to 10 Years.	10 to 20 Years.	20 to 40 Years.	40 to 60 Years.	60 to 80 Years.	80 Years and over.	Male.	Female	United States	Foreign	Total, both sexes.	Annual Death Rate, per 1,000.	Colored
Zymotic																	
Small Pox																	
Measles																	
Scarlet Fever																	
Diphtheria																	
Croup																	
Whooping Cough																	
Typhoid Fever																	
Malarial Fevers																	
Diarrhœal Diseases																	
Other Zymotic Diseases																	

CONSTITUTIONAL																									
Cancer												39	32	4	23	59	20	56	82	0	42	4			
Phthisis Pulmonalis						1	33	24	123	34		285	200	308	177	485	2	53	18						
Marasmus and Scrofula	137	21	10	168	2							74	96	170		17		88	3						
Other Constitutional Diseases	20	15	15	50	9	9	35	14	15	1	67	66	103	25	133	0	69	5							
LOCAL																									
Nervous—																									
Apoplexy								13	43	82	12	77	73	64	86	150	0	68	3						
Paralysis			5	5	1	3	2	11	21	7	14	36	37	13	5	0	26								
Meningitis	44	44	35	123	13	9	17	15	4	1	96	86	101	21	182		95	4							
Convulsions	172	26	30	228	7	2	3				119	121	237	3	240	1	25	14							
Other Nervous Diseases	35	13	18	66	7	12	19	30	29	7	83	87	129	41	170	0	89	9							
Circulatory—																									
Diseases of the Heart	1	3	2	3	6	2	11	11	45	101	16	103	123	109	121	230	1	32	10						
Other Circulatory Diseases									3	4	3	5	9	6	1	5	12	0	5	4					
Respiratory—																									
Bronchitis	71	40	17	128	5	4	12	19	36	6	117	93	189	55	210	1	64	1							
Pneumonia	48	42	51	138	12	10	60	82	43	10	196	159	234	121	355	1	85	16							
Other Respiratory Diseases	15		12	34	5	3	14	14	21	3	57	44	65	36	101		52	1							
Digestive																									
Diseases of Stomach and Bowels	116	16	6	138	3	3	20	33	26	4	117	110	174	53	225	1	18	8							
Peritonitis	3	4	1	8	4	9	19	13	6	1	30	3	39	21	60	0	31								
Diseases of the Liver	2			2		2	6	24	10	3	25	22	21	26	47		24								
Other Digestive Diseases	41	31		72					1		4	3	6	1	7	0	3	1							

*Following Diphtheria

TABLE No. 3.—Continued.

SHOWING CAUSES OF DEATH, WITH AGES OF DECEDENTS, TOGETHER WITH THE SEX AND NATIVITY, ALSO THE DEATH RATE PER THOUSAND OF THE POPULATION FROM EACH DISEASE

CAUSES OF DEATH	Age by Years.										Sex.		Nativity				
	1 Year and under.	1 to 2 Years.	2 to 5 Years.	Total under 5 Yrs.	5 to 10 Years.	10 to 20 Years.	20 to 40 Years.	40 to 60 Years.	60 to 80 Years.	80 Years and over.	Male.	Female.	United States.	Foreign.	Total, both Sexes.	Annual Death Rate, per 1,000.	Colored.
LOCAL.—*Continued*																	
Urinary Organs—																	
Bright's Disease		1	1	2	4	6	14	33	16	2	38	39	42	35	77	4	2
Nephritis		1	2	3	6	2	20	29	28	2	47	43	43	4	90	47	3
Other Dis. of Urinary Organs		1		1		2	1	1	12	1	2		13	1	27	14	1
Other Local Diseases			1	1		1	10	15	5	1	13	20	13	2	33	17	1
DEVELOPMENTAL.																	
Children—																	
Asthenia and Premature Birth	151			151							84	67	151		151	79	7
Congenital Deformity	2			2	1						8	13	21		21	11	
Other Diseases of Children	55			55							31	19	54	1	55	28	1

DEVELOPMENTAL.—*Con.*																		
Women																		
Puerperal Diseases ..						2	25	2		1		21	2	9	26		15	1
Old Age								1	55	37	29	64	37	54	13		48	2
ACCIDENT AND VIOLENCE																		
Accidents . .	1	4	6	11	10	9	31	19	14	1	79	16	61	34	95	0	49	2
Homicide		....	.					1			1	...	1		1		[illegible]	
Suicide .					.	4	12	13			2	9	16	13	29	0	15	1

RECAPITULATION

Population, January 1st, 1890............ 191,305

Total Deaths from Zymotic Diseases	1 14	Death Rate, ...	5 81
" " " Constitutional Diseases ...	[illegible]	....	+ 56
" " " Local Diseases	2 271	. ...	11 89
" " " Developmental Diseases	347	..	1 82
" " " Accident and Violence.	125	....	0 65
Total Deaths.........	4,629	Total Death Rate .	24 23

TABLE No. 4

SHOWING MORTALITY OF MONTHS, WITH AGES OF DECEASED, DEATHS WITH SEX, NATIVITY AND SOCIAL STATE.

AGES	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Grand Total.
Under 1 Year.....	62	55	76	75	56	1	215	135	5	5	51	97	1,152
Between 1 and 2 Years	25	13	33	27	29	34	64	51	31	23	22	17	370
2 " 5 "	39	29	31	47	37	47	51	31	24	34	37	44	443
Total under 5 Years ...	126	127	140	149	154	181	330	219	133	134	115	158	1,965
Between 5 and 10 " ..	19	14	2	15	23	2	13	26	12	25	26	34	211
" 10 " 20 " .	19	1	22	14	21	7	10	14	17	14	27	35	211
2 " 3	29	29	4	29	29	23	21	31	26	32	39	51	373
3 " 4 " .	31	35	21	25	33	38	34	39	23	31	35	33	379
" 4 " 5 " ..	29	32	33	30	35	21	24	26	21	39	27	25	351
50 "	35	24	34	21	15	3	35	29	22	32	29	3	344
" "	32	33	34	31	22	27	21	22	24	2	32	35	353
70 "	13	25	27	25	17	15	19	23	23	2	19	19	247
" "	5	15	5	11	7	6	14	11	7	5	7	5	109
" 9 " 10	1			3	1	2		1	2	3	3	1	17
Totals . .	342	346	384	361	367	385	531	441	312	370	362	432	4,623

TABLE No. 4 Continued.

	Jan.	Feb.	March	April	May.	June.	July.	Aug	Sept	Oct.	Nov.	Dec.	Grand Total
SEX.													
White—Males	182	154	200	188	169	195	257	220	148	189	185	197	2 286
" Females	149	181	178	173	175	169	259	206	155	169	161	213	2 188
Colored—Males	4	6	4	7	10	8	5	8	2	7	6	10	77
" Females	7	5	2	3	1	6	10	7	7	5	10	1	78
Totals	342	346	384	371	360	378	531	441	312	370	362	432	4 629
NATIVITY.													
United States	247	235	279	259	265	293	444	336	224	269	264	333	3 445
Foreign	95	111	105	112	95	84	91	105	88	101	98	99	1 184
Totals	342	346	384	371	360	378	531	441	312	370	362	432	4 629
SOCIAL STATE													
Single	206	187	230	230	236	246	393	296	187	216	213	285	2,925
Married	99	106	106	87	87	82	81	104	79	115	108	95	1,149
Widow	26	35	28	36	24	29	32	31	32	29	29	38	369
Widower	10	17	16	16	12	19	19	9	14	8	11	9	160
Not Stated	1	1	4	2	1	2	6	1		2	1	5	26
Totals	342	346	384	371	360	378	531	441	312	370	362	432	4 629

TABLE No. 5.

SHEWING MONTHLY MORTALITY IN WARDS OF THE CITY OF NEWARK WITH POPULATION AND DEATH RATE OF EACH.

WARDS																
First	9	12	15	18	11	20	26	12	6	10	9	16	164	9 796	16 7
Second	12	13	14	12	9	12	21	22	6	21	17	26	185	8,888	20 81
Third	14	11	10	16	10	17	13	9	8	17	4	14	143	8 097	17 66
Fourth	20	28	10	11	14	14	14	14	9	11	15	9	169	7 736	21 84
Fifth	16	12	15	15	20	13	17	14	12	13	11	21	179	7,045	25 40
Sixth	40	32	52	37	37	49	88	60	43	48	49	63	598	25 060	23 82
Seventh	24	19	19	17	13	15	37	21	21	15	16	24	241	10 680	23 50
Eighth	33	27	34	35	32	36	37	36	36	36	53	34	429	18 534	22 92
Ninth	14	14	15	12	10	9	9	10	9	17	9	7	135	8 382	16 10
Tenth	27	25	29	17	33	25	36	39	24	24	28	32	339	14 788	22 92
Eleventh	10	19	18	22	17	21	23	24	10	12	17	18	211	10 459	20 17
Total	34	33	52	47	49	57	74	56	39	39	48	54	582	18.979	30 66
Total City	52	54	56	52	62	42	82	74	48	53	41	74	690	27.204	25 36
Total County	9	7	10	8	4	6	6	6	8	11	1	6	82	6 317	12 98
Total	17	16	15	22	18	16	23	16	13	21	16	14	207	9 340	22 16
Total City Wards	331	322	374	341	334	352	505	413	272	348	334	412	4313	194	3 5	2 7
Total Institutions	11	24		3	2	26	5	28	2	22	28	2	175			44
Grand Total	342	346	384	371	336	378	531	441	342	370	362	414	4488	198	3 5	2 7

TABLE No. 6.

COMPARATIVE VIEW OF 27 OF THE PRINCIPAL CAUSES OF DEATH DURING THE YEAR 1889.

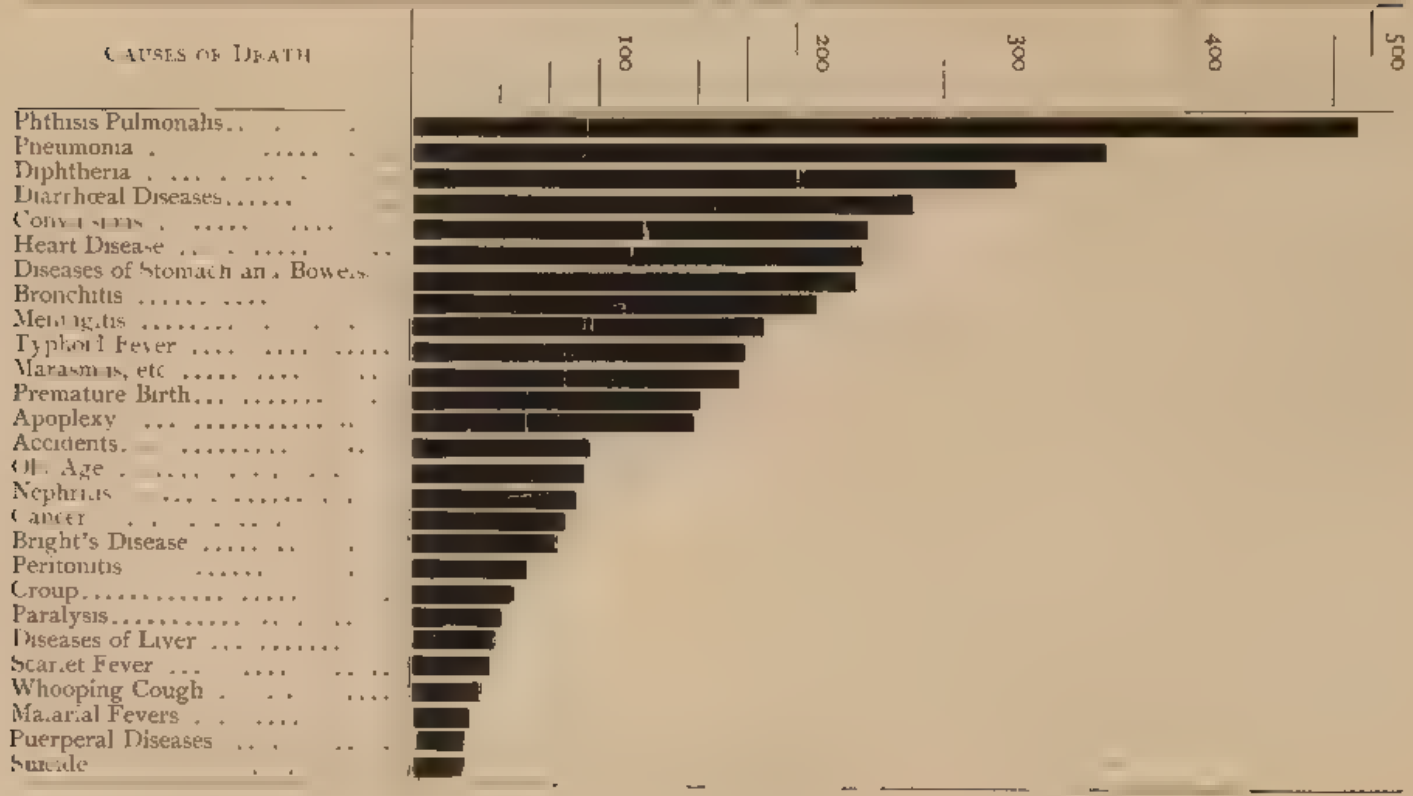

TABLE No. 7.

SHOWING DEATHS FROM 27 OF THE PRINCIPAL CAUSES.

CAUSES OF DEATH.	Total Number of Deaths from each cause	Percentage of each cause to Total Mortality	Deaths per Thousand Inhabitants	Total Deaths per Sex. Male.	Female.	Total Deaths under 5 Years.	Percentage of each cause under 5 Years to Total Mortality.
Phthisis Pulmonalis....	485	10 477	2 53	285	20[illegible]	..	.
Pneumonia	355	7 669	1 85	196	.5[illegible]	13[illegible]	2 9[illegible]1
Diphtheria..... ...	310	6.696	1 62	150	.6	[illegible]	4 1[illegible]
Diarrhœal Diseases	269	5 811	1 40	124	.45	23[illegible]	5 . 9
Convulsions.....	240	5 184	1 25	119	121	22[illegible]	4 9,2[illegible]
Heart Disease.....	230	4 968	1 20	107	123	[illegible]	.[illegible]
Dis. of Stomach & Bow's	227	4 9.3	1 18	117	11	13[illegible]	2 .[illegible]1
Bronchitis.....	210	4 536	1 09	117	.[illegible]	12[illegible]	2 [illegible]5
Meningitis	18[illegible]	3 931	0 95	96	[illegible]6	123	2 6[illegible]7
Typhoid Fever	172	3 715	0 90	88	[illegible]4	6	2 ,
Measles etc.	1	3 67,2	0 88	74	.[illegible]6	1[illegible]8	3 62[illegible]
Premature Birth	15[illegible]	3 262	0 79	84	6	1[illegible]1	3 2[illegible]2
Apoplexy. .	15	3 240	0 78	77	[illegible]3		
Accidents ..	95	2 052	0 49	79	1[illegible]	1	23[illegible]
Old Age.....	93	2 030	0 48	29	[illegible]4		
Nephritis	9	1 944	0 47	47	[illegible]3	3	64
Cancer	[illegible]2	1.771	0 42	23	[illegible]9		
Brights Disease	[illegible]	1 663	0 40	38	3[illegible]	2	4[illegible]
Peritonitis	[illegible]	1 [illegible]	0.31	30	3	[illegible]	1[illegible]2
Croup	[illegible]7	1 [illegible]	0 29	29	2[illegible]	4[illegible]	1 1[illegible]
Pleurisy	50	1 080	0 26	14	3[illegible]	[illegible]	[illegible]
Diseases of Liver.	47	1 015	0 24	25	2[illegible]	[illegible]	4[illegible]
Scarlet Fever....	46	993	0 23	22	2[illegible]	2[illegible]	6 4
Whooping Cough .	39	842	0 20	13	[illegible]	3[illegible]	[illegible]2
Malarial Fevers.....	32	691	0 16	15	1[illegible]	[illegible]	1 [illegible]
Puerperal Diseases	29	604	0 15	...	2[illegible]	.	
Suicide.....	29	.604	0 15	20	[illegible]		

TABLE No. 8.

SHOWING DEATHS AND PERCENTAGES OF THE SAME TO TOTAL MORTALITY AT THE DIFFERENT PERIODS OF LIFE

AGES.	DEATHS.		Percentage to Total Mortality.	
Under 1 Year.....	1,152		24.88	
From 1 to 2 Years....	368		7 95	
From 2 to 5 Years.....	443		9 57	
Under 5 Years.....	.....	1,963	.....	42 40
From 5 to 10 Years....	250		5.41	
From 10 to 20 Years.....	219		4 73	
Total from 5 to 20 Years.	.....	469	.....	10 14
From 20 to 30 Years.... ..	379		8.18	
From 30 to 40 Years.....	396		8 55	
From 40 to 50 Years.....	351		7 58	
From 50 to 60 Years...	344		7 43	
Total from 20 to 60 Years.	.....	1,470	.....	31.74
From 60 to 70 Years.....	353		7 63	
From 70 to 80 Years	248		5 36	
From 80 to 90 Years.....	109		2 36	
From 90 to 100 Years	17		0 37	
Total from 60 to 100 Years.	.....	727	.....	15 72
Grand Total..... ...	4 629	4,629	100 00	100 00

Monthly Mortality by Wards.

TABLE No. 9.

SHOWING MONTHLY MORTALITY BY WARDS FROM ZYMOTIC DISEASES AND OTHER CLEF CAUSES

JANUARY.

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
All causes all ages	9	12	14	20	16	40	24	33	14	2	1	34	52	[illegible]	17	331
Rate of Mort'y. Census of '85	12.	18.	21.	34	27.	21.	29.	23	21	23	12	23	[illegible]	[illegible]	25	
All Causes, under 5 Years..	1	4	4	6	3	18	10	12	3	1	4	13	31	2	[illegible]	120
Small Pox . ..																
Measles.....																
Scarlet Fever.								1		3		1				5
Diphtheria.....		....	1		1	2	2	1		1	1	2	4		1	16
Whooping Cough			...													
Typhoid Fever.		2	1	1	2	2	1	4	2	1			3	1	1	22
Malarial Fevers		1				1					1					3
Diarrhœal Diseases . .										1	..	1				2
Cerebro-Spinal Meningitis.		.	.				1						1			2
Other Zymotic Diseases. . .	....	..	1	1	..	4	....	.	1	1			4	1	1	14
Total Zymotic Diseases.....	....	3	3	2	3	9	4	6	3	7	2	5	12	2	3	64
Marasmus.....	..	....	..	1	....	1	1	1		...						4
Phthisis.....	3	1	....	4	3	6	1	6	1	4	..	3	2	2	5	41
Bronchitis	1	1		1	1	....	2	1	1	2		1	6			15
Pneumonia	2		1	3	1	1	2	4	3	6	2	-	-	1	2	42
Suicide	. .			.			1						1			3
Accidents	.				1	2		.		1		1	2		1	9

TABLE No. 9. Continued.

SHOWING MONTHLY MORTALITY BY WARDS FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES.

FEBRUARY.

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
All Causes, all Ages	12	13	11	28	12	32	19	27	14	25	16	33	54	7	16	322
Rate of Mort'y, Census of 85	16	20	17	48	21	16	23	1	21	22	23	22	25	14	21	
All Causes under 5 Years	4	4	2	5	2	15	10	14	2	11	8	18	24	2	5	127
Small Pox																
Measles																
Scarlet Fever																
Diphtheria		1		3		2	1	3	1	3		2	5		1	22
Whooping Cough	1						1					1		1		4
Typhoid Fever	1	1		2		1	1	1		1	2		1		1	12
Malarial Fevers				1	1	1										3
Diarrhœal Diseases							2					1	1			4
Cerebro-Spinal Meningitis																
Other Zymotic Diseases					1	1		1				1	3			7
Total Zymotic Diseases	2	2		6	2	5	5	5	1	4	2	5	10	1	2	52
Marasmus			1	1	1		1	1		2		1	2		1	11
Phthisis	2	3	1	1	2	3	1		3	5	2	4	6	3	3	39
Bronchitis		1		1		5	1	1		2	2	2	3	2	1	21
Pneumonia	1	1					1	3	2	1	3	5	4		2	28
Suicide						1										1
Accidents				1								1				2

TABLE No. 9.—Continued.

SHOWING MONTHLY MORTALITY BY WARDS, FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES

MARCH.

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
All Causes, all Ages	15	14	10	1	15	52	19	34	15	29	18	52	56	10	15	364
Rate of Mortality, Census of 85	2	21.	15	17	26	26	23	23	23	25	22	35	26	2	2	
All Causes under 5 Years	7	3	1	4	3	23	6	14	3	13	7	21	22	3	5	141
Small Pox																
Measles																
Scarlet Fever		1						1								2
Diphtheria	1	1		1		2	1	7		2	1	2	1		3	31
Whooping Cough	1										1					2
Typhoid Fever		1									1	1	2			5
Malarial Fevers			1													1
Diarrhœal Diseases						2		1						1		4
Cerebro-Spinal Meningitis						1						2				3
Other Zymotic Diseases	1			1		2	1				1	4			1	11
Total Zymotic Diseases	3	3	1	2		7	2	9		2	4	9	12	1	4	59
Marasmus	1					1		2	1	2		2	1			10
Pathisis	1	2	1		3	4	8	5	3	2	3	3	5		1	44
Bronchitis	1				2	4	1	3		2	2	2	4		1	22
Pneumonia	2	1	1	1	3	7	2	1	4	5	2	5	6	1		47
Suicide											1	1		1		3
Accidents		1		1								1	1			4

TABLE No. 9.—Continued.

SHOWING MONTHLY MORTALITY IN WARDS FROM ZYMOTIC DISEASES AND OTHER CURE CAUSES

APRIL.

WARDS.....	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Tot
All Causes, all Ages.....	18	12	16	11	15	35	17	35	12	4	22	45	28	8	22	341
Rate of Mort'y, Census of '85	24	18	24	16	20	19	2	23	18	15	30	31	24	16	2,	
All Causes under 5 Years..	6	6	8	3	6	19	8	17	1	6	7	25	19	1	1	146
Small Pox.....																
Measles.....																
Scarlet Fever.....		1	1	1				2				1	1		1	8
Diphtheria.....	1				1	3	2	3		2		4	8			24
Whooping Cough..						1						1			1	3
Typhoid Fever.....	1		1	1	1	1										5
Malaria Fevers.....					1											1
Diarrhœal Diseases..					...		1	,		,		1	1			3
Cerebro Spinal Meningitis					,		1	1							1	3
Other Zymotic Diseases		3	1		1					1	1	3	1			11
Total Zymotic Diseases .	2	4	3	2	4	5	4	6		3	1	10	11		3	58
Marasmus.....	,			,				3			1			1		6
Phthisis.....	4		1	2	3	3	3		2	8	1	5	2	1		32
Bronchitis.....	2		3		1	2					2	3	4			17
Pneumonia.....	2	1		3	3		6	5	2	1	3	8	3	2	2	41
Suicide.....				1		1								1		3
Accidents.....								1		1	1			1	1	5

TABLE No. 9.—Continued.

SHOWING MONTHLY MORTALITY IN WARDS FROM ZYMOTIC DISEASES AND OTHER CAUSES

MAY.

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Average Mortality	11	[illegible]	1	14	[illegible]	37	13	32	1	33	17	[illegible]	62	[illegible]	[illegible]	334
Total Mortality Census 85	18	12	15	24	34	17	6	21	18	25	22	33	24	8	24	
Mortality under 5 Years	5	1	2	—	2	18	4	14	4	13	8	28	38	1	11	153
Small Pox																
Measles					1						1	2				4
Scarlet Fever				1	1	1			1		3		2		1	10
Diphtheria					3	4		4		5	1	7	9			33
Whooping Cough							1			1		2				4
Typhoid Fever	1			1									1		2	5
Malarial Fevers				1		1			1							3
Diarrhœal Diseases								1			2		1			4
Cerebro-Spinal Meningitis	2							1								3
Other Zymotic Diseases	1			1						1		2				5
Total Zymotic Diseases	4			4	4		1		2			13	13		3	71
Measles						3	1	1	1	3	1	1			1	17
Phthisis		4	1	1	4	3	2	2	1	3		2			2	36
Bronchitis	1		1			1		2			1	2	3		3	16
Pneumonia				1	1			1			1		3		1	15
Suicide					1	2										3
Accidents									1	1		2	1			

TABLE No. 9.—Continued.

SHEWING MONTHLY MORTALITY IN WARDS, FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES.

JUNE.

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
All Causes, all Ages	20	12	17	14	13	40	15	36	9	25	21	57	42	6	14	352
Rate of Mort'y, Census of '85	27	16	26	24	22	25	18	24	14	21	25	38	19	12	21	
All Causes, under 5 Years	2	6	6	8	6	36	3	16	5	16	11	32	25	2	5	179
Small Pox																
Measles									1			1				2
Scarlet Fever	1					1										2
Diphtheria			1				1	3		3	1	2		2	1	21
Whooping Cough				1	1	2		4			1	1		1		11
Typhoid Fever				1								2				4
Malarial Fevers											1					1
Diarrhœal Diseases				2	2	2		1	1	5		9				22
Cerebro-Spinal Meningitis	1															1
Other Zymotic Diseases		1	1			1				2		1				6
Total Zymotic Diseases	2	1	2	4	3	13	1	7	2	10	3	16		3	1	70
Marasmus		1		1	1	1		1		1		4	1			11
Pathisis	5		2	1	1	2	4	2	1	2	3	4	5	1	2	35
Bronchitis	1			1		2		3		1	1	4	5		2	20
Pneumonia				1		3		2	2	3	2	7	2		1	23
Suicide								1								1
Accidents		1		1			1	1					2			6

TABLE No. 9.—Continued.

Showing Monthly Mortality and Cases from Zymotic Diseases and other Diseases

JULY.

WARDS.....	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
All causes, all ages.....	26	21	13	14	17	58	37	57	9	37	23	4	52	1	23	5
Rate of Mortality per 1000 per annum	25	25	2	22	21	44	14	28	14	31	28	44	33	2	31	
All Causes, under 5 Years..	13	1	5		9	68	7	28	3	2	19	5	7	3	18	324
Small Pox																
Measles..		1				2	2				3	1				9
Scarlet Fever						1					1					2
Diphtheria						5		1		3			2		2	7
Whooping Cough												1			1	4
Typhoid Fever																2
Malarial Fevers																1
Diarrhœal Diseases			3	3	5	23	1	5	2	1	4	1	22	1	3	2
Cerebro-Spinal Meningitis			1													1
Other Zymotic Diseases	1										1		2			1
Total Zymotic Diseases	5	5	3	3	5	32	13		2	1	9	5	26	1	6	19
Marasmus		2		2		1	2			2	2	1	1		3	21
Phthisis	3	2				5	5	2	1	3	3	3	5		2	3
Bronchitis						3	1	2		2	1	4				14
Pneumonia		1					3					8	3			23
Suicide					2	1			1		2					3
Accidents				1	1	2			1		2	3				5

TABLE No. 9.—Continued.

SHOWING MONTHLY MORTALITY BY WARDS, FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES.

AUGUST.

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
All Causes, all Ages	12	22	9	14	14	60	21	36	1	39	24	56	74	6	16	413
Rate of Mort'y, Census of 85	14	28	14	21	24	30	25	24	15	33	29	35	33	12	21	
All Causes under 5 Years	4	9	3	9	4	38	12	17	2	15	13	33	47	1	2	219
Small Pox																
Measles	1						3				1		1			6
Scarlet Fever																
Diphtheria	1	2		1		8		1		2	2	2	8			27
Whooping Cough	1	1						1				2			1	6
Typhoid Fever		1			1	2		1	1			1	2	1		10
Malarial Fevers				1				1								2
Diarrhœal Diseases			3	2	2	6	2	2		4	5	10	18		5	59
Cerebro-Spinal Meningitis																
Other Zymotic Diseases	1					1			1				1			4
Total Zymotic Diseases	4	4	3	4	3	17	5	6	2	6	8	15	30	1	6	114
Marasmus		1		2	1	9	1	6		2	1	5	3			31
Phthisis	2	2	1		2	4	1	2		6	2	3	4			29
Bronchitis		2		1		2		2		1		1	3			12
Pneumonia	1					5	1	1	1	1	2	4	1			17
Suicide		1				1		1								3
Accidents		2		1						2	1	2	1	1	1	11

TABLE No. 9. Continued.

SHOWING MONTHLY MORTALITY BY WARDS, FROM ZYMOTIC DISEASES AND OTHER CLEF CAUSES

SEPTEMBER

WARDS.	.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
All Causes, all Ages	7	6	8	9	12	43	21	36	9	24	1	39	45	8	13	272
Rate of Mort'y, Census of '85	7	8	12	14	24	22	25	24	14	16	12	25	21	16	17	
All Causes under 5 Years...	2	3	3	5	4	23	8	6	4	18	1	7	26	3	4	113
Small Pox																
Measles																
Scarlet Fever																
Diphtheria						4		3		2		1	3	1		15
Whooping Cough							1			1						2
Typhoid Fever						1		3	1			2		1	1	8
Malaria, Fevers		1								1		1				4
[illegible] Diseases		1	1	3	1	6		4		1	1	8	4	2	1	33
[illegible] Spinal Meningitis							1									
Other Zymotic Diseases				1		2		1		1		1	2			8
Total Zymotic Diseases		2	1	4	3	13	2	1	1	6	1	13	9	3	2	70
Malignant	1	2			2		1	1	2	2	1	2	3	2	1	2
Paralysis					1	2	2	1	1	3		3	1		3	29
Brain Diseases						4		2				2	2			11
Pneumonia			1			3	1			2	1	3	1			13
Suicide				1	1			1				1	1			4
Accidents		1										3			1	6

TABLE No. 9.—Continued.

SHOWING MONTHLY MORTALITY BY WARDS, FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES.

OCTOBER.

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
All Causes, all Ages	10	21	17	11	13	48	15	36	17	24	12	39	53	11	21	348
Rate of Mortality, Census of 85	12	28	26	15	22	23	16	24	26	19	14	26	24	22	28	
All Causes, under 5 Years	3	6	3	4	6	22	6	10	2	8	3	20	26	4	10	133
Small Pox																
Measles																
Scarlet Fever	1				2							1				4
Diphtheria		3				6	1			4	1	9	8	1	3	36
Whooping Cough		1						1								1
Typhoid Fever		1	1	2		3		3	1	2		2	4			19
Malarial Fevers										1		1	2			4
Diarrhœal Diseases		1	1			1		1					2	2		5
Cerebro-Spinal Meningitis																
Other Zymotic Diseases					1	2	1				1	1	2	1	3	12
Total Zymotic Diseases	1	6	2	2	3	12	2	4	1	–	2	14	18	4	6	84
Marasmus	2			1	2		1	1	1			1	2	1		12
Phthisis	1	2	2	1	1	3	3	4	3	3	1	1	6		1	32
Bronchitis						2	1	1	2	2		1	1		2	13
Pneumonia	1	2	2		1	1	1	3		1	2	5	2	1	1	23
Suicide				1					1				1			3
Accidents									1							1

TABLE No. 9.—Continued.

SHOWING MONTHLY MORTALITY BY WARDS, FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES.

NOVEMBER.

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
All Causes, all Ages	9	17	4	15	11	49	16	53	9	28	17	48	41	1	16	334
Rate of Mort'y, Census of '85	11	23.	6.	23.	19	24	17	35.	14	22.	20	30	18.	2	21	
At Causes, under 5 Years	2	2	2	3	3	18	1	16	2	5	9	26	18		7	115
Small Pox																
Measles																
Scarlet Fever			1			2				2						5
Diphtheria		2			1	7	1	4		2	3		5		1	26
Whooping Cough										1						1
Typhoid Fever		1	1	1	1	2		3		1	1	2	3		2	18
Malarial Fevers					1	2							1			4
Diarrhœal Diseases		1						1					1			3
Cerebro Spinal Meningitis	1															1
Other Zymotic Diseases		2		3	1			3					3			12
Total Zymotic Diseases	1	6	2	4	4	13	1	11		6	4	2	13		3	70
Marasmus				2		2		1							2	7
Phthisis		3		2	1	4	4	5	3	4		3	5		2	36
Bronchitis						2	1	2		1	1	1	3		2	13
Pneumonia	1	1			2	4	1	4			2	13	3	1		32
Suicide		1						1								2
Accidents				1						2	1	1				5

TABLE No. 9.—Continued.

SHEWING MONTHLY MORTALITY BY WARDS FROM ZYMOTIC DISEASES AND OTHER CHIEF CAUSES

DECEMBER.

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total.
All Causes, all Ages	16	26	14	9	21	63	24	34	7	32	18	54	74	6	14	412
Rate of Mortality (Census of [illegible])	[illegible]	35	21	14	36	[illegible]	26	21	11	24	22	34	33	12	19	
All Causes under 5 Years	4	7	2	3	9	30	6	14	. .	13	7	22	33	2	6	158
Small Pox			.			.						.		.	.	
Measles															. .	
Scarlet Fever		1			2						. . .	2	2	. . . .	1	5
Diphtheria		3			1	1		1		1		6	1	.	1	14
Whooping Cough						.										1
Typhoid Fever	2	6	1	. . .	5	3	4	3	1	3	1	6	3	2	1	46
Malarial Fevers		1	. .	. . .	. . .	1	. . . .	.	. .	. . .		1	1	.		4
Diarrhœal Diseases	1	.	.	. .		.	. .	. .	. . .	. .	2	.	1		. .		4
Cerebro Spinal Meningitis											1					1
Other Zymotic Diseases				1		1	. .		. .	. .	2	1	2			6
Total Zymotic Diseases	3	11	1	1	8	23	5	4	1	6	9	17	18	2	3	112
Marasmus						3	.	3	.	2	1	2	2		2	15
Bronchitis	1	2	2	2	1	2	2	2	1	4	4	6	6		1	34
Bronchitis	.	. . . .		1	1	5	. .	3	. . . .	4	1	3	5			23
Pneumonia	1	. .	1	2	2	2	2	2	.	4		6	3		.	32
Suicide	.	.	.	. . . . .		. .										
Accidents	2	. .	.		.	1	. .		. . .	2		2	3			11

REPORT OF ATTORNEY.

REPORT

OF THE

Attorney of the Board of Health.

NEWARK, N. J., January 4th, 1890.

To the Honorable, the Board of Health of the City of Newark, N. J.

GENTLEMEN: The report of your Attorney for the year 1889 is herewith submitted.

The number of complaints referred by the Health Officer to the Attorney during the year 1889, was four hundred and eighty-nine, not including milk complaints. This number may be slightly inaccurate, as a few complaints of the previous year may be included, but it represents the complaints in the hands of the Attorney during the year as nearly as he is able to state. This is an increase over the previous year of about one hundred, three hundred and ninety-three complaints having been received during the year 1888. In spite of this increase the actual litigation of the Board has decreased more than one half.

During 1888 the Board prosecuted one hundred and twenty-five cases, during 1889 the number was only fifty-five. This is due to several reasons, perhaps the most important one is that the people have concluded that it is cheaper to make the sanitary repairs required of the Board of Health without waiting for the summons which follows the Attorney's letter. At any rate, remarkable promptness is generally shown in responding either in person or by letter to the notice from this office, and while the promises so promptly made are sometimes forgotten to the annoyance of the Health Department, and the law is occasionally invoked which might have been avoided, citizens generally have appreciated the propriety of heeding

the Board's directions. Another reason for the decrease in litigation, [illegible] letters are taken directly to lawyer's offices and the result is now compliance, where it was formerly bitter resistance.

The following is a brief summary of the litigation during 1889:

Pending cases at beginning of year	5
Cases instituted during the year	50
	55

DISPOSITION OF CASES

Costs paid and discontinued	17
Discontinued without costs	10
Discontinued, costs to be paid	7
Summons not served	6
Judgments in favor of Board	8
Judgments for defendents	2
Pending	5
	55

I received from sales of [illegible]		$25 94
I have collected during the year fines and penalties, including milk analysis and witness fees of chemist		237 55
		$263 49
I have paid over to the Health Officer and hold his receipt therefor	$220.55	
I have expended from sums retained in my hands by authority of the Board for postage, witness fees and costs	41.88	$262 43
Leaving a balance in my hands of		$1 06

I know of nothing connected with my office which would particularly interest the Board. The Health Officer will undoubtedly refer in his report to the unavoidable delays attendant on the prosecution of offenders against the Sanitary Code. General rules must have exceptions, but I am not prepared to admit that it would be either just or politic to summon a citizen to answer for a violation of an ordinance in an ordinary case without first writing him of your intention so to do. If this plan is adhered to, delay must result. Of course in urgent cases, immediate action can be taken as it has been in the past, but it seems to me wise to pursue a general policy that will occasion as little friction as possible between the Board and the citizens, and yet secure compliance with the Board's requirements.

Respectfully,

JOHN R. HARDIN,

Attorney of the Board of Health

REPORT OF CHEMIST.

REPORT

OF THE

CHEMIST of the BOARD of HEALTH.

NEWARK, N. J., January 1st, 1890.

To the Honorable, the Board of Health of the City of Newark, N. J.

GENTLEMEN:—I herewith submit my second annual report.

The chemical work for the year ending December 31st, 1889, has been very limited; there having been but eight samples of milk analyzed and one sample of water.

The milk analysis are tabulated as follows:

No. of Sample	Water	Total Solids.	Fat.	Solids not fat.	Specific Gravity	Remarks
85	89 72	10.28	2 74	7 54	1 0243	Watered Milk.
84	90 13	9 87	2 43	7 44	1 02544	" "
78	89.01	10.99	1 14	9 85	1 0359	Skimmed "
77	90 06	9 94	2 34	7.60	1 02505	Watered "
68	91 68	8 32	1 95	6 37	1 0209	" "
76	90.24	9.76	2 07	7 69	1.02552	" "
75	92 13	7.87	2 15	5 72	1 01876	" "
53	89 66	10 34	2 91	7 43	1 02407	" "

All of the above analysis proved the milk to have been below the legal standard of twelve per cent. of milk solids. All the samples with one exception having been adulterated with from fifteen to forty per cent. of extra water; the exception being a sample of skim milk.

The average percentage of solids found in the eight samples [illegible] samples found below the standard in 1888

The point is frequently made by milk dealers that the present standard of 12% of solids in milk is too high. This is just the reverse of what is true; for, as shown by experiments recorded in last [illegible] over 13%. In other states the milk laws are much more stringent [illegible] "skimming," I would suggest to your Honorable Body that an [illegible] analyzed for the purposes of the act, be examined by the most reliable method now known.

Method to be described detail

One sample of well water was analyzed during the year, and the result proved the well to be very badly polluted, indeed the water was no better than a sewage effluent.

There are no doubt many such wells in Newark, and sanitary [illegible] the owners of the wells, to such a course, has been the substitution [illegible] ever, since we are shortly to have a supply of pure water, the [illegible] should be abandoned

Owing to the very important facts set forth by one of the members of your Board during the year, in relation to the action of [illegible] containing such drinks.

[illegible]

arrested for the time being, but they are not all dead, and their spores remain almost unchanged and capable of development as soon as placed under favorable circumstances.

Very respectfully,

HERBERT B. BALDWIN,

Chemist of the Board of Health